



SPARKS JOURNAL

★ ★ ★ ★ SOCIETY OF WIRELESS PIONEERS, INC ★ ★ ★ ★

LEGENDS OF THE WIRELESS PIONEERS

RECORDING THE EARLY HISTORY & DEVELOPMENT OF THE WIRELESS

VOLUME 4, NO. 4

- QUARTERLY -

TITANIC EDITION-1982



SEVENTIETH ANNIVERSARY



SINKING OF SUPER-LINER TITANIC

CQD CQD SOS DE MGY

We Heard Them Playing

— BY —

'Autumn'

E. A. D'ONOFRIO

It came through the haze like a frosty, delicate blue mountain. Far above the boatdeck, forward lookout Frederick Fleet squinted, not wanting to believe what lay placidly across the bow in the distance.

"Good Lord...iceberg, dead ahead," he hailed to the bridge.

The Officer of the Watch acknowledged curtly and sprang into action: "Hard-a-starboard* (steer the ship sharply to the left) -- Stop -- Full Astern -- Close all watertight doors." Warning bells began clanging to alert the ship's crew that her sixteen watertight compartments were automatically being closed.

But the seconds had run out. She brushed her starboard side at 22 1/2 knots, spewing chunks of ice along her upper decks, to the amazement and delight of many of the younger passengers.

To most of her 2207 passengers and crew, the gentle "bump" was hardly more than a minor, temporary interruption in the Titanic's rather prosaic maiden voyage. At the worst, a damaged or dropped "screw", thought some, and a quick return to Belfast for repairs.

Could you blame them for thinking so, for the cold night's sky was ablaze with brilliant stars, the sea as peaceful and as calm as a country pond. And the Titanic was unsinkable -- double-hulled, 16 watertight compartments, Marconi wireless, and all the rest that money could buy. She was the most luxurious and most gigantic ship in the world. Her crew was par excellence.

*In 1912, the indirect system of helm orders was used, but this was changed under the Merchant Shipping Act of 1932. But for the men working below, they knew differently, as cascades of frigid water flooded their compartments. Water pumps roared to keep back the Atlantic, commands shot back and forth, as bells and warning lights signalled to all the mortal wound she had suffered.

Within minutes, her commander, Captain Edward J. Smith, a distinguished, affable gentleman who had spent his life at sea, was conferring with his officers to determine the extent of the damage. He looked at his watch -- nearly midnight -- and surveyed the grave faces of his staff. "Two, two and a half hours," he said; "she's gone." The Titanic carried 1178 boat spaces -- but she had 2224 persons aboard. (Continued on Page 28)



April 15 1912

Foreword

Her name is a legend. Even today, it conjures up mixed feelings of majestic greatness, wealth, class distinctions, courage, cowardice, human frailties, and needless loss of human lives...the TITANIC.

Let's look at the pioneer wireless operators who knew and loved her during her brief but glorious life, and who were there to mourn her at her side when she died that freezing night in mid-Atlantic, April 14, 1912.





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Book Reviews

SALTWATER BOOKSHELF

"ICEBOUND IN THE SIBERIAN ARCTIC"

A second edition of Bob Gleason's book "Icebound in the Siberian Arctic" has been printed. Bob says captions have been corrected and there are several additions, including new photos, epilogue on Alaskan Airways, and a radio equipment index. The name of the operator on the SS Wisconsin was learned through SOWP member George P. Beckett just in time to be included in the list of radio operators. Earl Scott, the newly elected Director of the Jack Binns Chapter, is also shown as the operator of the MV Karise. Available from Alaska Northwest Publishing Co. Box 4-EEE, Anchorage, Alaska 99509. \$4.95 plus \$1.00 postage. WABreniman

AMATEUR RADIO THEORY AND PRACTICE

By Robert L. Shrader - W6BNB.
Published by McGraw Hill, 340 PP Indexed \$ \$14.95)

"Bob" Shrader, SOWP 157-P, who taught electronics more than 25 years and is author of a pre-eminent text book on the subject, has now published a new book directed toward amateur radio operating..

"Bob" presents to a person with no background in radio, everything he needs to know to qualify for an amateur license in the 22, easy to read and understand, chapters.

The text is clear and explicit in simple terms. Mathematical explanations are at a minimum. The first chapter outlines the scope of amateur radio; the next 19 chapters are devoted to basic electrical and electronic theory to develop a foundation of understanding with "quiz" questions for each chapter. Chapter 21 outlines the method of learning how to receive and send code. Chapter 22 contains a condensation of FCC rules in plain understandable language. The appendix includes locations of FCC field offices, useful abbreviations, including some Phillips Code and selected trip tables and common logarithms as well as LXCX Nomographs. This book will be a valuable reference for the wood-be amateur or the licensed operator. Elmer Burgman.

(Continued on Page 3)



HISTORY OF THE WIRELESS

The Founder's Page



BY

WILLIAM A. BRENNAN

(1912) TITANIC MADE WIRELESS HISTORY

The Sinking of the Titanic was probably the most important milestone the world has ever known in the history of the wireless-telegraph and the future of electronic communications.

Probably no other night in history has generated as much publicity as the night of APRIL 14, 1912. That is when the 'unsinkable' White Star Liner Titanic hit an iceberg at 11:40 PM and took her plunge to eternity in the icy waters of the North Atlantic at 2:20 AM April 15th, carrying over 1500 lives with her.

Until that date, Wireless had been considered somewhat of a novelty - used by press agents of the Steamship Companies to assure potential patrons of the added safety it would provide and the convenience of 'keeping in touch'. Little suitable space was provided aboard ship for the equipment (gadgetry) and many skippers took a dim view of its value. Indeed the equipment itself was not too dependable as the set on the Titanic broke down the morning of the 14th but Chief Operator Jack Phillips was able to find and fix the malfunctioning equipment, enabling him to start clearing the stack of messages on the "hook", and as it turned out, transmit the distress signals and messages later that FATEFUL NIGHT, which resulted in the saving of over 700 lives.

Historically, the Titanic is remembered because so many prominent people of the world lost their lives in the tragedy and of course the sinking of an 'unsinkable ship - the largest in the world' was perhaps the greatest maritime news story that ever occurred so it occupied front page space for many months to come in nearly every newspaper of the world.

The disaster shocked the world and led to immediate changes in world-wide maritime laws and at the same time projected the safety and utility value of wireless-telegraph into the forefront of public attention like nothing had ever done before. Marconi stock rose in value from 55 to 225 in 2 days.

Editorial in the Belfast Evening Telegraph stated..."It is with regret that we state with the fullest sense of responsibility that never in history of hidebound officialdom has there been such an instance of crass stupidity and ineptitude as there has been exhibited on this occasion. It is only by reason either of the gross incompetence, sheer idleness or hidebound red-tapism of the responsible officials that the public were not supplied with the fullest and most authentic particulars of this great tragedy. No wonder officials of the White Star Line and Government agencies wanted to hide.

The British Court of Inquiry convened after the tragedy and was presided over by Lord Mersey. After due time the 'report' was released to the public. Typical comments by the press were as follows:

DAILY MAIL -- "Want of knowledge of the sea rendered opinions absolutely worthless"

DAILY EXPRESS -- "Findings were a farce. The Titanic disaster is an example on a colossal scale of pernicious and supine system of the officials as represented by the Board of Trade. "BOT" and White Star should have been standing trial for criminal negligence. "Rigged Inquiry" Captain Lord (SS California) was censured on half-cocked evidence".

One of the Senators attending the U.S. Congressional hearing made the infamous inquiry ... "What are icebergs made of?"

Of course charges flying back and forth did not bring those who perished in the disaster back but it did serve to stir most governments of the world to make drastic laws both in the safety area and in communications.

FATEFUL MINUTES

The Leland Liner California-MWL had anchored for the night, due to presence of icebergs, at a spot only a few miles from the Titanic's position. After Phillips returned his set to operation, Operator Cyril Evans of the California tried to pass him information about the ice bergs but was told by Phillips to (SHUT UP) through the use of signal "DDD" as he was interfering with transmissions with Cape Race. Rebuffed by Phillips, Evans secured the watch only 15 minutes BEFORE the Titanic was to send its Call for Help.

Operator Harold Thomas Cottam of the Carpathia was about to retire and in three more minutes he would have been oblivious to the Titanic's plight as he was about to take his head-phones off at the time of the call - this after a long days watch.

While the sea was smooth as glass at the time the Titanic hit the iceberg, a fresh wind started to blow and there is a strong likelihood most of those in lifeboats would have perished from exposure due to the 'wind-chill' factor.

You win some ... and you lose some. This time the Titanic lost ! The prime reason ? A reckless gamble to set a record crossing of the North Atlantic and cinch the 'Blue Riband' - with the prestige- it would bring. Over 1500 paid with their lives but reforms brought about by the disaster has probably saved many times that number over the years. Jack Phillips - Marconiman did not make it. He was among the avant-garde of our craft who proved himself a hero that night and helped establish the heritage of our great profession. "Thirty" to you Jack... after the lapse of 70 years we say a silent prayer and still bless you !

FOOTNOTE

"Ye Ed" has ALWAYS BEEN A Titanic Buff. Back in 1922 he spent several months researching all the Titanic books and documents available, including the full report of the British Court of Inquiry; plus that made by the U.S. government on the subject. As a result, I furnished several 'in depth' articles on the subject, one of which was published by Henry Dickow in PACIFIC RADIO NEWS circa 1921.

I would like to compliment author E. A.(Al) D'Onofrio - W2PRO from Yonkers NY for his fine coverage and story of the Titanic. I think members will find Al's story fascinating and informative. WAB.



THE SS. TITANIC PIN

The drawing inside the circle (not to scale) is a rough image of the Society's TITANIC PIN. The finished product is a beautiful memento and keepsake of this historic ship which we think members will cherish.

FREE TO MEMBERS The pin will be sent **WITHOUT CHARGE** to all members who have paid their 1982 dues...AND who make a special written request for one. Members must include a SASE (Return addressed and stamped envelope to themselves). Outside the US, members must also request and include addressed return envelope with loose stamps inside for overseas mailing. We would appreciate picture or commemorative issues), from your country.

Dimensions and specifications of the pin, roughly as follows, as shown in circle: **SIZE:** Under 1-1/2" horizontal and 1" verticle. **COLORS:** Black hull; Blue sky; White superstructure. Large gold wireless flash at top. Portholes and shourds plus name TITANIC on bow in bold. Bottom in red with gold letters of Society name. It is a very attractive 'Attention Getter" type pin.

These pins honor Rudy Asplund, one of our early benefactors (substantial) and to Commemorate the 70th Anniversary of the Sinking of the Titanic and the heroic role played by Jack Phillips that fateful night when his wireless saved over 700 lives.

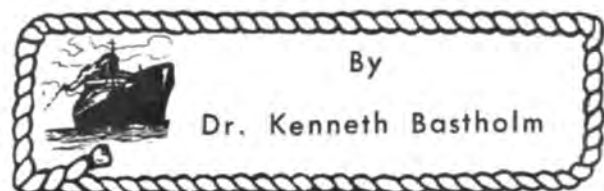
Be sure your return address is correct with correct postage as our supply will not allow duplicating. This is a 'one-time' order for pins so offer will be good until August 1 1982. If we have any surplus pins at that time we will accept orders (with sase) and serve on a 'first come-first served basis'. No money should be sent. Price of the pins will be \$5.00 - tax extra in California.

The stories in newspapers and magazines (circa 1912) about the sinking of the Titanic was responsible for many of our members taking up wireless as a life profession - including that of the Founder of the Wireless Pioneers.

Members of the Society who are "TITANIC BUFFS" might like to know about the Titanic Historical Society, founded in 1963 by our late member William H. Tantom IV (SOWP-41TA) who became a Silent Kay in June 1980. The Society publishes a magazine devoted to the Titanic. Address: P.O. Box 53, Indian Orchard, MA 01051. We have received several copies of their very interesting publication.



Cape Hatteras, N.C. "RDF" Station -NDW



This is a short history of Cape Hatteras Radio Direction Finder station, NDW.

Part of this was told to me by an old time Navy CW operator at NDW.

I was a member of the Coast Guard crew that took over operation of the station from the Navy in 1941.

Cape Hatteras Radio was located about two miles north of the famous Cape Hatteras Lighthouse.

In the early days of radio the Navy selected Cape Hatteras as the location for a traffic station.

As years passed, radio equipment for ship to shore communications was improved. Cape Hatteras Radio was discontinued by the Navy as a traffic station.

Radio direction finders were developed and became an important aid to navigation. The Navy then installed the direction finder equipment.

Cape Hatteras D/F (NDW) was control station for the group which included Virginia Beach D/f (NCZ) to the north and Cape Lookout D/F (NAN) to the south.

There was no commercial electric power on the Outer Banks.

Cape Hatteras Radio had two, horizontal, Fairbanks/Morse diesel engines, each engine was single cylinder with two flywheels. The flywheels were five feet in diameter.

Each engine had a belt drive to its DC generator.

There were two banks of batteries, one bank being discharged while the second bank was in use.

When the weather was bad and visibility limited around the Cape, the transmitter was on continuously, and the diesel would run 24 hours per day for several days.

All the radio equipment, lighting, refrigeration on the station were powered from the batteries.

A motor/generator supplied power to the transmitter.

The transmitter was an MOPA, 200 watt, shipboard model (Western Electric?).

The D/F receiver was a large desk model, which tuned from about 100 kc thru the broadcast band. It was a sensitive and smooth operating receiver.

There was also a rack mounted National HRO receiver with speaker to keep continuous watch on 500 kc.

DC voltage to the receiver plates was supplied by the 120 VDC station voltage.

The radioman in charge had a small apartment on the second floor of the barracks building.

Each of the four watch standers had his own room on the first floor.

The cook also had his own room.

(Continued on Page 5)

**RADIO DIRECTION FINDER STATION
CAPE HATTERAS - NDW
BUXTON - NORTH CAROLINA**



LOOKING NORTH Generators Barracks Radio Shack

Cape Hatteras Lighthouse



Light Identification - 1 Flash every 10 Seconds.

North Carolina's famed Outer Banks are a land of legend, exploration, dreams and the conquest of new frontiers. They are a chain of narrow islands extending 175 miles from the Virginia line to Cape Lookout near Morehead City, N.C.

Firsts are nothing for the Banks. Here the English colonists made their first settlement in 1585. It was here the Wright Brothers started man on his journey to the heavens. It was here the nation's first National Seashore - Cape Hatteras - was set aside so that future men might see a beach in its natural state.

The remote beaches have been called "magnificent desolation" by many. To some people, the idea of a nearly uninhabited beach is not enticing. But for those who like their beaches with a dash of solitude and serenity, the Outer Banks will be to their liking.

Largest of the Outer Banks resort towns is Nags Head, with its beach stretching some 20 miles from Kill Devil Hills to the northern entrance to the Cape Hatteras National Seashore. According to legend, Nags Head acquired its name from the unscrupulous practice of residents who tied lanterns on the necks of ponies and marched them along the high dunes. The lights swinging from the ponies' necks gave the impression of boats pitching in the water, thus deceiving the captains into running aground on the shoals where the cargo of their ships could be plundered.

Cape Hatteras, long famous as the "Graveyard of the Atlantic" because of its dread Diamond Shoals claimed thousands of ships in the days before radio and radar, wears a new image as focal point of the National seashore.

The Cape Hatteras Lighthouse - tallest on the American Coast, is open to visitors, and the energetic may climb its 268 steps for a panoramic view.

It was at Hatteras Village that General Billy Mitchell and members of the U.S. Army Air Corps proved the validity of aerial bombing by sinking two Navy battleships anchored nearby.

Water for drinking and cooking was rain water collected in two cisterns. The cook used a "pitcher pump" in the galley to bring water up from the cisterns.

The water tank on the tower supplied water for sanitation and most important, for fire protection. We were our own fire department and had frequent fire drills.

A one cylinder, make and break, gas engine had a belt drive to the pump to get the well water up into the tank.

Before WW II and radio silence we enjoyed working the ships in the coastwise shipping lanes as they approached the Cape, sailed by Diamond Shoals and continued on their voyages. Many were repeat "customers".

After the German submarines started to attack Allied shipping along the coast we were deluged with distress traffic.

The nearby torpedo attacks could be heard and the windows of the buildings on the station would rattle.

It was a sad sight to see the black smoke out on the horizon from a drifting, burning vessel which had been torpedoed.

Cape Hatteras became known as "Torpedo Junction".

After WW II and the development of loran the D/F stations were considered obsolete and were discontinued.

After removal of radio equipment the Cape Hatteras Radio Station was sold to a civilian physician.

He maintained a medical there for a short time.

On a trip to Cape Hatteras in 1966 I looked for the station.

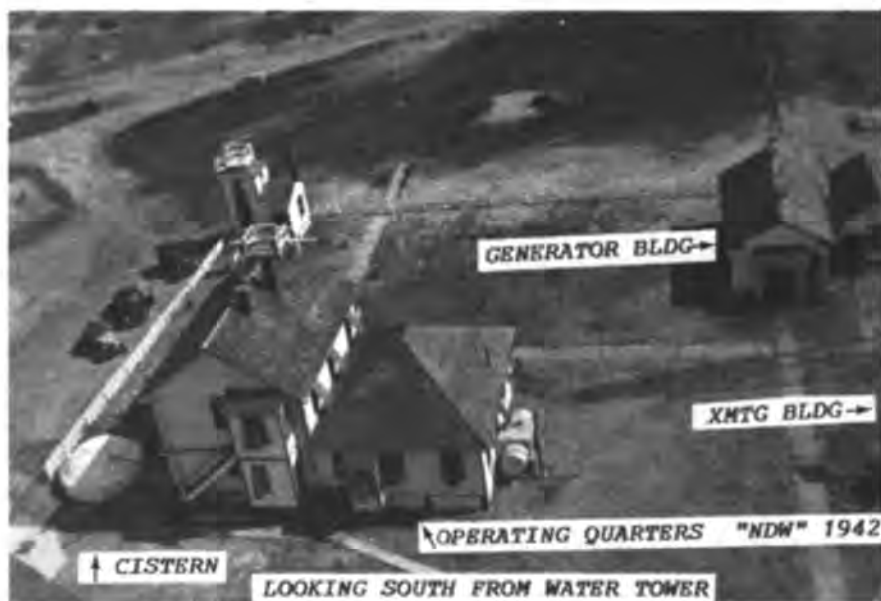
All the buildings had been destroyed.

The sand had drifted and covered all concrete foundations.

All evidence of the old radio station had disappeared.

An important era for coastwise shipping communications and aids to navigation has come to an end.

I was stationed at NDW, 1941-42-43.



ON THE BEACH - CAPE HATTERAS - 1942



SOME OF THE DISTRESS MESSAGES INTERCEPTED DURING JANUARY 1942

SOS de SVOF
48.12 North 47.45 West Lost rudder.

SSS de SS Hindustan
28.52 north 73.17 west sub sighted

SOS de HPXU
46.00 N 45.00 W Sinking fast lifeboats smashed

SSS de GPZK
41.51 N 63.48 W torpedoed

SOS de YTTE
52.30 N 46.00 W without steering lifeboats gone

QQQ de KIZG
43.22 N 67.09 W suspicious vessel

SOS de WHYH
SS Santa Elisa 39.14 N 74.14 W collided
COAST GUARD 25 miles east Wimble Shoals, flard
on horizon could be vessel aflame (no doubt
referring to Allen Jackson afire)

XXX de GNFP
Flash and subsequent red glow last forty five
minutes approx posn Cape Hatteras 249 degrees
Cape Henry 312 degrees

SOS de WHEA
25.50 N 88.00 W sinking collision

The following on January 19, 1942

SSS de KDSI
Shelled by submarine

SSS de KDSI
SS Malay shelled again

SSS de LDDI
We can see submarine we are following

SOS de KDSI
Sinking rapidly

SOS de KDSI
Sinking rapidly three miles inside Wimble Shoals

NCU de WLFO
SS Socony Vacuum picked up crew of SS Ciltvaira

WSC de KDSI
Settling fast two men dead two critically injured
two missing

NMN de WLFO
SS Ciltvaira still afloat torpedoed amidships

SSS de KGRG
36.53 N 75.42 W SS Tidewater torpedo attack

NMN de KGRD
Sub periscope definitely sighted

CQ de PUQY
Ship Ciltvaria abandoned 35.52 N 75.16 w



EDITOR'S NOTE:

DR. KENNETH BASTHOLM who now lives in South Miami Beach Fla. took these pictures while assigned "NDW" back in 1942. He was assigned this Hatteras facility for about 3 years. This was during the most active period of U-BOAT sinkings at or near "TORPEDO JUNCTION" as Cape Hatteras was called. Pictured is wreckage washed up on the Hatteras Beaches. This was result of submarine warfare before the United States formed convoys to be protected by escort vessels.



VOYAGE TO WEST AFRICA - 1954

By ARNOLD GILMORE

I'd like to take you on a journey, not a fancied one, not one from fiction but a real one. I would like to give you some of the flavor of the Merchant Marine, of what it's like to sail aboard a "freighter-passenger" ship with such exotic ports of call as Dakar, Senegal, French West Africa; Abidjan, Ivory Coast; Lagos, Nigeria; Fernando Poo, a Spanish island; Pointe Noire, French Equatorial Africa; Luanda, Angola, Portuguese West Africa, and many others along the West African coast.

The ship is the S.S. African Pilot, Farrell Lines, a Class C2 freighter capable of carrying 10,000 tons of assorted cargo, plus up to 12 passengers. The home port is Brooklyn, New York, and the voyage commences in the early evening, destination Dakar, F.W.A.

During the next several days we hardly see another ship, only the beautiful blue Atlantic Ocean. It shone and glittered and sent up spray. During the fair weather we had our 10,000 ton cradle where worry didn't exist and the best Scotch was available, that is, if one had made the proper provisioning before leaving port! One can truly relax aboard freighters. Most of the men passengers dressed in shorts, even for dinner. Ties were taboo. The ladies dine in slacks or sporty outfits. One has no choice but to relax. Most of the passengers just loaf in their deck chairs all day. You rest, you read, or you can sleep 12 hours.

After lunch, most people take a two hour siesta. The days at sea are pretty much the same. Monotony can be a tonic: early breakfast, a little fresh air, a walk on the deck (carefully or you just might stumble over a mess of machinery, anchors, cables, etc.), a visit to the bridge, the deck chair, 11 a.m. cocktails, four-course lunch, more rest. One listens and talks to the same people in the afternoon. There are always plenty of rumors flying; i.e., ETA's, ports of call, weather conditions, etc. Drinks at 5 p.m., then dinner, then the long evening: conversation, reading, bridge, scrabble and so forth. Not the life for a swinger. One can count on good accommodations in freighter travel: well appointed state-rooms with plenty of closet space, two portholes, excellent beds, bright lighting, carpets, air-conditioning. You can also count on excellent food. One can truly count on a vacation feeling, particularly if you're older and need no games to pass away the time.

Deckside service is out aboard a freighter, but you'll have the sunset all to yourself. However, you won't find a doctor aboard twelve passenger vessels. To the contrary, you never know when you will be leaving port. Departures may be changed three or four different times. This means upset plans, lost hotel reservations, mounting expenses while your stuck at your embarkation point. One can never be certain just where a freighter might stop. You are less important than the cargo, which happens to be the freighter's main stay. Be sure to be aboard before the gangplank comes up, otherwise, you might find yourself waving a goodbye to your friends from the dock! You just can't eat when you wish or what you wish. Freighter breakfast usually starts at the impossible hour of 7:30 a.m. and ends at 8:30. Lunch is at noon, dinner normally at 6:00. Few freighters let you choose between several dishes. One eats what is set before them. But there are many compensations: freighter sunsets are uncluttered; you just see the apricot sky and the darkening ocean.



S. S. AFRICAN PILOT - WPEQ (Farrell Lines)
Freighter Type C-2. Picture taken on the West Coast of Africa in 1954 by Radio Officer, Arnold G. Gilmore - SOWP Member 2776-V

Here is the place to read "War and Peace", or write a novel of your own to turn your thoughts inward. Brings to mind a notation by Bacon: "It is a strange thing that in sea voyages where there is nothing to be seen but sky and sea, men should make diaries; but in land travel, wherein so much is to be observed, for the most part they omit it." Here one can forget about television, news, telegrams: In short, like the lady who no longer wanted to land, you can at least get away from it all.

If one is so inclined they can toss over bottled notes to the ocean. At one time this happened to be my pastime. I did eventually receive two different letters from persons having found my notes in water-tight bottles washed up on some remote beaches. One bottle was picked up on the Grand Bahama Island six years after it was set afloat. The other was picked up on the island of St. Kitts one year after it was thrown overboard. These two bottles with notes were dropped overboard off the West African coast near the Cape Verde Islands and swept by the Equatorial Currents to the West Indies.

Because Ghana's capital, Accra, lacked an adequate natural harbor during this period, sea-going vessels anchored offshore and delivered their freight in two-ton lots to boatmen, who then paddled a mile to shore through heavy swells. A safe transit depended on the whim of wind and wave; cargoes have been lost when lighters overturned in the surf. Three-fingered oars were used to propel the surfboats towards Accra Beach. To stroke in rhythm, the men would sing folk songs. Thirteen men-bosun, mate, ten paddlers, and a boat boy formed a large surfboat's crew. Traveling ashore in these surfboats as a passenger was usually an experience to remember! The freeboard, when the surfboat was loaded was only several inches as I recall. It was somewhat difficult for one to keep from getting wet during these trips! Once we were in behind the breakwater and close to the beach a couple members of the boat's crew would hoist each passenger onto their shoulders and then wade the few feet to dry land. No charge going ashore but you could rely on this situation being changed after six o'clock at night! Usually for a couple of English Pounds one could barter for transportation back to the ship. Of course, one could always stay ashore for the night. After all, a double Scotch and Soda was only thirty cents!

(Continued on Page 20)



LOADING COFFEE on the Coast of Angola, West Africa - 1954



ARNOLD R. GILMORE at desk of WPEQ on the SS African Pilot.

LOADING MAHOGANY LOGS at Abidjan, Ivory Coast, West African - 1954



Accra, Gold Coast (Ghana) Cargo is lightered to/from ships offshore in 'surf boats' carrying about 2 tons each trip. These boats have a free-board of only a few inches. They are staffed by 10 paddlers and 1 helmsman. Men work scantily clad - the paddles of various boats are made up in various colors and designs to drive away the evil spirits. Pix by A. R. Gilmore on the African Pilot - 1954.



WEST COAST CALL LETTERS BEFORE 1910

By Edmund H. Marriner W6BLZ

This list was reproduced from a 1909 Wireless Book. It is interesting to note that other stations at the same time were using the same call letters in other parts of the country.

Naval Stations

- TA Cape Blanco (Massie Equipment. 5KW)
- TD Tatoosh
- TE North Head, Ore.
- TG Mare Island, Calif.
- TH Farrallon Island
- TI Goat Island
- TK Pt. Arguello
- TL Pt. Loma also TM

Commercial Stations

- DA Perry Hotel, Seattle, Wash.
- DB Tacoma, Wash. (United Wireless Tel. Co.)
- DE Pasadena, Calif.
- DF Santa Barbara, Calif.
- DG Sacramento, Calif.
- DK Everett, Wash.
- DM Salem, Ore.
- DN San Luis Obispo, Calif.
- DO Roseburg, Ore.
- DS Port Townsend, Wash.
- DU Juneau, Alaska
- DV Chehalis, Wash. 1909
- A Avalon, Catalina Island
- EX Los Angeles, Examiner
- G Pacific Wireless Co. Los Angeles
- GM SS Asuncion
- KE St. Helens, Oregon
- KB Spokane, Wash, Carlisle Hotel
- FW Ft. Worden
- UC Honolulu, T.H.
- SA Nome, Alaska
- SN Cordova, Alaska
- SO Sitka, Alaska
- SP Puget Sound
- O-2 Portland, Ore. Continental Wireless
- S-2 Seattle, Wash.
- H-2 Rose City
- RY SS Yale United Wireless Tel. Co.
- RH Harvard

United Wireless Calls

- PA Seattle, Wash.
- PB Ketchikan, Alaska
- PC Astoria, Ore.
- PE Friday Harbor on San Juan Island
- PD Portland, Oregon
- PF Aberdeen, Wash.
- PG Gray's Harbor, Wash.
- PH San Francisco, Calif. (Palace Hotel)
- PI Avalon, Calif. (also listed as Farrallon Isl)
- PJ San Pedro, Calif. (G)
- PK San Diego, Calif.
- PL Eureka, Calif.
- PN Katalla, Alaska
- PO Cordova, Alaska
- PP Monterey, Calif.
- PR North Vancouver, B.C.
- PS Presidio, Calif.
- PT Fort Bragg, Calif.
- PU Bellingham, Wash.
- PV Kalama, Oregon
- PW Victoria, B.C.
- PX Marshfield, Oregon
- PY Olympia, Wash.
- PZ

Several stations used the same call.

Army

- FB Fairbanks, Alaska FM Ft. St. Micheal, Alaska
- FD Nome, Alaska FP Petersburg, Alaska
- FE Mouth of the Yukon FQ Ft. Egbert
- FG Fort Gibbon FX Ft. Worden
- FK Circle City

Naval Shore Stations - Pacific Coast Areas

- NPA Cordova, Alaska
- NPB Sitka, Alaska
- NPC Bremerton, Wash.
- NPD Tatoosh Island, Wash.
- NPE North Head, Wash.
- NPF Cape Blanco, Ore. (Marschfield)
- NPG Mare Island, Calif.
- NPH Vladivostok, Siberia (temp)
- NPI Farallon Islands, Calif.
- NPJ Balboa, C.Z.
- NPK Point Arguello, Calif.
- NPL Point Loma, Calif.
- NPM Pearl Harbor, T.H.
- NPN Guam
- NPO Cavite, P.I.
- NPP Peking, China
- NPQ St. Paul, Alaska (Pribilof Island)
- NPR Dutch Harbor, Alaska
- NPS Kodiak Island
- NPT Olongapo, P.I.
- NPU Tutuila, Samoa
- NPV Seward, Alaska
- NPW Eureka, Calif.
- NPX San Pedro, Calif.
- NPY St. George, Alaska
- NPZ Puget Sound, Wash.

Early Canadian Stations

The Canadian government operated a network of spark land stations that was in some ways unique. For instance they used rotary spark gaps, about the year 1910. Instead of starting with a common letter they all had station calls ending in "D".

- | | | |
|-----------------------------|--------------|-----|
| VSD Victoria, B.C. | later became | VAK |
| KPD Pachena Point | | VAD |
| USD Estevan Point | | VAE |
| TLD Triangle Island | | VAG |
| AKD Québec/Charlotte Island | | VAH |
| PRD Prince Rupert | | VAJ |
| PGD Point Gray | | VAB |
| SKD Cape Lazo | | VAC |

VAG was later moved from Triangle Island to Bull Harbor and a station added at Alert Bay, VAF.

These stations in addition to handling ship traffic also operated a very fast efficient relay system. Each was located on just about the limit of the range for the adjacent station. Victoria would send a message bound for Prince Rupert for instance. It was copied and ok'd by Pachena Point who would immediately send it to Estevan Point, who immediately relayed it to Triangle Island.

Federal Telegraph Poulson Arc's about 1913

- POL Central Point, Oregon
- PFW Fort Worth, Tex.
- PNU Honolulu, T.H.
- PNX Phoenix, Ariz.
- PKC Kansas City, Mo.
- PLA Los Angeles, Calif.
- PSC South San Francisco, Calif.
- PSD San Diego, Calif.
- PSF San Francisco, Calif.
- PSN Portland, Oregon
- PSO El Paso, Texas

By 1912 some of the two letter calls still in existence and becoming three letter calls were: KPA, KPB, KPC, KPD, (KPE was assigned to a Port of Seattle station about 1915 and had nothing to do with United Wireless) KPH, KPM and KPJ by now had dropped out of existence.

ROSTER S.F. RADIO CLUB 1916

BY LEE FASSETT

Members of the San Francisco Radio Club-Circa 1916 as furnished by H.W. Dickow prior to becoming a silent key.

- | | |
|----------------|-----------------------|
| C. Altland | 662 Clayton St. |
| E.V. Baldwin | 463 Guerrero St. |
| H.C. Brown | 1306 Filmore St. |
| C. Brown | 1038 Balboa St. |
| F.L. Busch | Ft. Winfield Scott |
| W.R. Carrilon | 4075 - 17th St. |
| R.F. Clairmont | 3767 - 23rd St. |
| D. Cole | 725 Ashbury St. |
| C. Cronkhite | Ft. Winfield Scott |
| F. Davis | 658 Ivy St. |
| A.J. Dimond | 2015-A Sacramento St. |
| H.W. Dickow | 427 - 26th Ave. |
| L. Fassett | 4326 Balboa St. |
| P.R. Fenner | 1338 Masonic Ave. |
| P. Flaig | 43 Mizpah Ave. |
| W. Griffith | 737 Shrader St. |
| C. Heaney | 374 - 22nd Ave. |
| W. Henry | 554 - 11th Ave. |
| E.T. Hidden | 1348 Arguello Blvd. |
| N. Hueter | 1434 Jones St. |
| R.B. Jones | 310 Parnassus Ave. |
| E.M. Carr | 438 Presidio Ave. |
| H.R. Lee | 1580 Grove St. |
| E.G. Mahn | 29 Saturn St. |
| H. Malarin | 719 Page St. |
| W.L. Metzger | 4428 - 23rd St. |
| D.B. McGowan | 1247 - 47th Ave. |
| J. Metcycick | 1753 Noe St. |
| J.E. Mosier | 716 Haight St. |
| E. Radford | 4608 - 18th St. |
| C. Reed | 683 - 7th Ave. |
| E. Riddle | 50 Main St. |
| T.J. Ryan | 82 Downey St. |
| H.P. Schenck | 1632 Bush St. |
| J. Spatafore | 1934-B Folsom St. |
| L.J. Spaulding | 172 - 32nd Ave. |
| H.R. Sprado | Hotel Worth |
| E. Stevens | 50 Main St. |
| F. Taylor | 612 Oak St. |
| W. Wells | 818 Hayes St. |
| C. Whiting | 1622 Shafter Ave. |
| G.F. Whiting | 1325 Guerrero St. |



SEATTLE WATERFRONT - EARLY DAYS



Henry Joe Poy

"HANK" - A China Boy's Experience



I was R/O on the SS Jefferson/WAJ of the ALASKA line, in 1919. Only 16 at the time, and born of Cantonese parents, who were converted to Christianity in Portland, Oregon. I finished the YMCA radio school and Mr. Twogood was happy to know I was headed for Seattle to take the FCC examination from Insp. Wolfe which was atop the LC Smith building. I had studied "wireless" very earnestly and was the first one in high school to have a crystal receiving "loose coupler" of the "rolled oats" genre that could bring navrad NPE (100 miles away) in R-5 on a Baldwin receiver.

Insp. Wolfe passed me on a grade of 85, and their office told all persons around I was the first Chinese wireless operator (PY) to ship out from Seattle. With a telegraph First in my pocket, and heart full of thankfulness, I left the FCC office and reported to the SORS at dockside. To my surprise, they wanted me and they didn't want me. Looking questionably and surprisedly at me, they put me through a strict question and answer test. My work qualifications were being challenged. I wrenched the documents from the inside coat pocket and the YMCA wireless diploma. Both were legally signed by authorized agents of the U.S. government and the YMCA authorities. Confronted with these documents was enough to belay their efforts to further questionability. In Washington high school I carried five subjects which included Latin and math. I proceeded to a two-hour class in Cantonese at a Chinese mission school. Clarence and Bill, my two brothers, followed the same routine each day. One eventually became a mining engineer from Golden, Colorado, and Bill became an M.D. from Northwestern.

Jue Poy, my beloved father, a Presbyterian layman, was of the ancient order of Toishan's village heirarchy. He was many times addressed as Reverend Poy. He preached very often from the mission pulpit in his "Sze-Yup" dialect, which was difficult to render as educational to the younger aspirants. Only the elders were his peers.

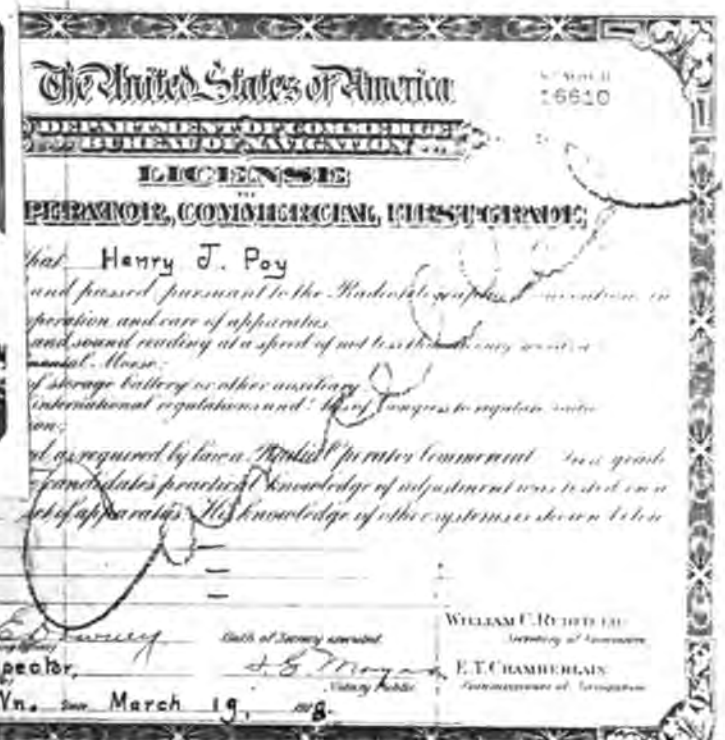


The SORS (ship owners radio service) had a large vacancy list for the rest of the traveling season to Alaska. Their need was great. How could they turn me down? Peace between the two World War belligerents was not signed as yet, and many former ships' operators were not discharged from the armed services. Then, the normal pay was very seldom over ninety dollars. I was very anxious to get assigned to my first career job as a wireless operator. So I told SORS in rebuff. I was getting "hot under the collar." "I can speak Cantonese and become the steamship's Chinese interpreter. The SS JEFFERSON, the SS ALASKA, the SS YUKON, the SS MARIPOSA, they all carry two to three hundred Chinese cannery workers to and from Alaska salmon packing plants." It was something going for me, even though there was no need for an interpreter. However, it was just an impromptu remark. My only amateurish attempt at translating was at an American-learning class for Chinese immigrants at the mission school in Portland where father was a layman-superintendent.

"Is this your right age, 16?" he asked. "Yes, I will be 17 in October." I added, "I have lived and worked the Alaska salmon canneries for three of my summer years. My father's cousin, Mr. Lock, was cannery foreman for Alaska packers. Sitka, Taku and Bristol bay canneries are not new to me. I am husky at 140 pounds and used to do the 48-pound cases by piling them "eight high." I was fighting for my legal rights and felt that I was being unreasonably questioned. This SORS man probably possessed a bit of superiority complex, knowing I was of Chinese heritage. He apparently wasn't going to as-



Theoretical



sign me to an official sea-going ship of the U.S. maritime company. "If you are hesitant in signing me, I will report back to the FCC. They will give me a letter of recommendation to the United States Shipping Board (USSB) to an assignment on newly constructed ships of the Standifer Shipbuilding Company." At the "Y" school, the bulletin board was pasted with notices of vacancies for "ops" to take the new ships on trial trips down the coast. They paid \$135 per month, room and board plus wireless uniform. They're rock 'n' roll trips.

I should have mentioned before that my father's family lived in a KwangTung village and came over on a three-masted schooner from Hong Kong. It took the barkentine three months to cross the Pacific. He knew no words in English, but was armed only in youthful courage and a strong body with willingness to work.

After a stint working on the Pacific railroads, he became a true Christian through his friendship with the Reverend Mr. and Mrs. W. S. Holt of the Presbytery in Portland. With hope and a great determination, he was made and assigned as head chef of a large boarding hostelry with 8 or 9 Chinese kitchen aides. He married my beautiful mother, who was trained in Christian living and a devout member of the mission.

I really don't know how they did it. Father was 55 when I went to Washington High. I was 13 after graduation from Stevens school, and third oldest in a family of seven kids. Father was making \$150 per month in 1917, bought himself a seven-room house on a lot 50 x 100. He had no days off. His only transportation from home on the east side of the Willamette River to his job was by no coaster-brake bicycle with wooden rims and solid rubber tires. For night riding, he had to light up a carbide lamp. The streets were rough and unpaved. In the early years before the 1911 revolution in China, he sported a long pigtail with a silken skull cap with a red button. His only English utterance during his teen-age was: "Hoh-la-mah? Come-look-see-me," etc. After ten years of mission school, he then escalated to: "How are you, sir, and do come and visit me sometime," with a sparkle in his eyes. Mrs. Murphy, his boss and owner of the boarding house was proud of her chef.

Everything that a 16-year old highschool boy wanted or wished he could do. Mother would always nearly agree but at the end, she would say, "Ask your father." I had a Portland paper route on the east side which brought in a measly stipend. It was enough for carfare to and from Cantonese school and a weekly band practice on Stark street's Chinese chamber of commerce building. We had a Chinese student band of 35 pieces called the New Era band. Mr. Herman Lowe, the Chinese immigration interpreter was the owner and manager. He was wonderful and always successful in booking New Era in the yearly Rose Carnival parades. We wore a dressy blue uniform and caps. The boys struck up a rhythmic tune and marched proudly down Broadway under "Stars & Stripes." The first Chinese band of 35 pieces ever to gallantly play before tens of thousands of applauding spectators. We brought great respect to the Chinese people of the city.

I was to receive with honor a diploma from the "Y" radio school and business college. At the end I was able to receive and copy the Continental Morse code on a typewriter at 20 words per minute. I also was accomplished at "touch typing" at 50 w.p.m. This touch typing put me in good standing with Federal Telegraph Company of San Francisco when visual tape telegraphy became standard procedure in 1927. HB/SF is still the office call for Mackay/ITT's office on Mission Street. "Fifteen words for the price of ten" was Mackay's gimmick that brought the company to national prominence. West coast officials were A. Y. Tuel, Capt. E. H. Dodd, H. L. Rodman, E. V. Baldwin and J. T. Chatterton.

Henry Poy Story Continued

Well, after much hemming and hawing, they assigned me as 2nd operator aboard the SORS (Kilbourne & Clarke) passenger ship, the S.S. Jefferson leaving Puget Sound for Southeastern Alaska via Juneau and many cannery ports. As I predicted, the ship provided first class passage for 100 passengers and 200 steerage passengers.

The crimp-looking wireless room not much over a crib-size stall. The one-half kilowatt quenched-spark transmitter with its loose-inductance coils and the ancient carborundum crystal sliding tuner was crammed against the forward bulkhead. The senior operator, whose name I've forgotten, was a crispy old "vet" of unknown repute. Much older than myself...had a slight slump on his back...red pimply face...and carried a domineering visage. WAJ was my "beginner's" job, and my position was not promising. The only words the man would say: "Take over the watch, China boy." I began fidgeting with the delicate "catwhisker"...and loudly came the station "VAE"...the sending operator had a "Mary Pickford" swing. Our ship was rounding Juan de Fuca Straits. My associate frightened me much. He was a man of the WORLD. I was just a kid.

Undeniably, as a "Y" wireless operator, I was a greenhorn amateur on my first commercial adventure. Twisting the big tuner knob, a loud but mushy signal came down the flat-top antenna via the copper lead-in to my loose-coupler. I was a bit confused from the heavy static but full of anxiety. Jiggling the "catwhisker" to a more sensitive spot on the galena crystal, I grabbed a pencil and nervously translated this "mushy" signal. Lo and behold! I never heard such a hairy note. WAJ WAJ de WAW WAW WAW QRK? ar.. The Admiral Watson calling the Jefferson! Believe it or not...the "China boy's" first official call. But suddenly, the signals stopped abruptly. The static disappeared. The ship's stern was jumping and leaping with each turn of the props. Each bump was like riding the railroad ties. I threw the main switch to activate the M.G. which was quite noisy. The quenched spark gap was even more disturbing, but like all 60 cycle rigs, it had to heat up a bit. Whew! I saw liquid leaking from the rim of the quench gap. The hi-frequency was arcing all over the place. I depressed the key thinking the dampness would disappear. My hands were all tied up...between the ugly catwhisker and the damping gap, I was all butterfingers. The ship's prop slowed a bit...the call from the Watson came in louder than ever. I found a good spot on the crystal, so I managed to answer feebly. WAW WAW de WAJ ga K...The 600 meter was loud and clear. After all, he was on his way to Alaska so he was not too far distant. He quoted his name: Theron Bean, 2nd opr here...who you? Of all things, it was my old buddy at the YMCA Portland. He was a Jefferson High student and now officially established wireless operator on the Watson. What a joy it was! "This is 'Hank' Poy of Washington High. Headed for Skagway, Alaska." The reason for the "mushy" signal...the WAW had a mercury rectifier transmitter aboard. Our direct QSO was a thrill, both of us being out at sea. I was very proud of my accomplishment. I gaped at the black and white "spark" insignia on my shoulder with distinguished pride. The "China-boy operator" slantingly smiled with glee.



THE DAILY PRESS NEWS



The 'Penny' Pincher'

BY GEORGE BEATER SK

We old timers know how cheap some steamship companies were, and steamship agents were even more penny pinching. Back about 1936 a shipping agent, to save eight cents, caused the loss of a ship. I heard the message: MSG NR 1 CK 3 PHILADELPHIA -...- SS MOUNT OLYMPUS WSC -...- WILMINGTON -...- (No signature). Lots of ships used to start westward across the Atlantic :blind," receiving destination orders later by radio. The Greek's skipper, unfamiliar with our shores, apparently spotted Wilmington, North Carolina, on his chart and assumed that was it, and didn't notice Wilmington, Delaware, his intended destination, up the river. In trying to get into Wilmington, N.C., he hung up on a sand bar and had to abandon ship. It may still be there; I know it was there a long time.

Some skippers were just as penurious. On WMCT the captain, who always wrote out his messages and figured the check and cost, handed me one reading: MSG NR 2 CK 6 SS GLOUCESTER -...- MERMINTCO BALTIMORE -...- CHANGE ABANG TO ABAMO -...- (No signature). I told him the check should be 7 as plain words in a code message were charged for on the basis of five letters per word, and "change" had six letters. "You mean I have to pay eight cents just for a dit?" he asked. I said, "Yes, eight cents for one little dit." He took the message away from me and gave the matter deep thought. Twenty minutes later he brought the message back for transmittal with "change" changed to "alter."

—George Beater (224-P)

The 'Swinging' Onion

BY ERIC COLBURN

It was way back in about 1919, when the old passenger ships "HARVARD" and "YALE" were about to give up their regular Boston-New York run, I was on vacation from my job as radio operator. Like a postman's holiday, I accepted a one trip relief job on each ship.

After joining the HARVARD, the first thing I noticed was a big onion tied on a string to the freshly polished copper tubing running from the radio antenna lead-in insulator to the big spark transmitter. I was soon to find out the purpose of the onion.

The radio shack was located on the top boat deck midships, a popular area for passengers in good weather. A fresh breeze was blowing and the "onion" was swinging back and forth with the rolling of the ship. Pretty soon a passenger wondered by and as he peered into the radio shack door he asked, "What is that big onion for?" I quickly answered, "Oh, that; that is to make the signals strong."

The romance of radio telegraph still lingered in the minds of everyone in those days, and passengers were always sticking their noses in the door way of the radio shack. I guess our first inquirer sensed this for he did not leave. He was waiting for the next sucker. It wasn't for long. Pretty soon I had about 50 passengers hanging around the radio shack door, just waiting for the next sucker to ask, "Say, what is that onion for?" Such a gathering of passengers brought results. Although a short run, they just had to send a radiogram ashore. Without that onion they never would have thought about it. As I remember it, I collected about \$75.00 in message fees that first day, just because a previous radio operator had thoughtfully tied an onion to the antenna lead-in.

—Eric D. Colburn (704-P)

West Point Story



WUW



THE CITADEL ON THE HUDSON

Radio stations are found in many unusual places around the world. Even here in the United States, stations have evolved in the most unexpected places. One such station is "WUW", which is located at the United States Military Academy, better known as "West Point."

The U.S. Military Academy's main purpose in life is to prepare selected young men and women for service to their country as professional soldiers of the U.S. Army. However, over the years, as specialization has increased and become more complex, the military profession has become also more diverse. One of these highly specialized areas is communications.

Throughout the Army, communications is a vital function and is handled by a highly trained and specialized group of professionals. This collection of talent is organized into the army's Signal Corps. Signal Corps units are present in all army organizations from Division level up through the field army. In smaller units, the signal equipment procured by the Signal Corps is operated by the men and women of the various combat and support services.

In time of emergency, and in particular during times of war, the Army has looked to the Amateur Radio Service to find qualified personnel to furnish trained personnel to meet immediate emergency communication needs.

In 1940, just prior to the U.S. entry into World War II, Don Masten (SOWP Nr. 777-V) reported in at the West Point Signal Detachment as a radio operator. At that time, all communications were in code. Voice communication had not yet taken over. During this period, most of the radio traffic which was generated at West Point was sent to Army Headquarters on Governors Island, New York. Tours of duty were a normal eight hours with the station closing down at five P.M. each afternoon.

After Pearl Harbor, in December 1941, the radio shack which was located in the basement of building 600, went on regular shifts for around the clock operation.

When Don Masten reported in, he replaced Sergeant Cone who moved over to head up the film library for Cadet Instruction. However, before leaving, Sgt. Cone gave Don a thorough "indoctrination" on the "WUW" operations. Not being able to type at the time, Don decided it would be to his advantage to be able to copy traffic with a "Mill" rather than trying to write out all the messages that were being handled. As a result, he taught himself to touch type "on the job."

During this period of time, operators had a headphone on the land-line telephone. Incoming messages from the Post (West Point) were received on the phone and were typed as they came in for subsequent transmission by radio. All traffic was sent with a typical speed key of that period.



Sergeant (Technician) Don. B. Masten at the main operating position of "WUW". 1941. He was Ass't. Chief. Sgt. Walter Morris was

CHOP. He also headed up Cadet radio instruction.



1941

Picture shows the main operating position at Post Radio "WUW" which is located at the U.S. Military Academy at West Point, N.Y.

To right of picture, on wall is copper tubing mounted on stand-off insulators. This tubing carried the shielded twin lead feed lines from the receiving dipoles on the roof of the HQ. building. The receiver on right is a Sylvania. Receiver left is a Hammarlund Super-Pro. The box left of Super Pros was a code oscillator used for training student operators. Both speed and hand keys were mounted to right of the 'Mill'

Radio operators in this type of environment not only operated radios, they also had to perform other non-related duties. For example, each morning prior to opening the station, the operators had to polish the floor, take weather observations by checking the weather instruments located on the roof of the Headquarters building, etc.

Basic operations were conducted in the War Department Radio Net with Governors Island, N.Y. (Station WVP) which was the Net Control Station. Fort Monmouth, N.J. (Station WTW) was another prime station in the net, as was Mitchell Field, Long Island (N.Y.) with call letters "WYA." This latter station was part of the Army Air Corps at the time.

After Pearl Harbor, two more operators were added to the station complement. These operators came from Camp Crowder, Missouri and both were excellent operators. About this same time, a teletype was added to the equipment at WUW.

The receiving equipment at WUW was quite sophisticated for the times. Some of the equipment used included the following:
A Sylvania receiver (used for receiving on 160 khz).
Hammarlund Super Pro (used for L.F. and H.F. receiving).

In the transmitting department, the main transmitter was a Federal Telegraph 2 KW model, which was located on top of the sewage beds with an elaborate ground system. This area was about three miles from the operating position.

At the remote transmitter site, there were two 190 foot high broadcast towers mounted on 10-foot concrete piers. A "T" type antenna was strung between the towers and was long enough to resonate on 160 khz.

Recently, Don Masten returned to West Point for a visit. As Don remembers, the oak wood work is now a little darker and the photos on the walls have changed, but essentially, the building is the same as it was 38 years ago when he enlisted in the Army. Says Don, perhaps, contrary to what Tom Wolfe said, "You can come home...again and again."



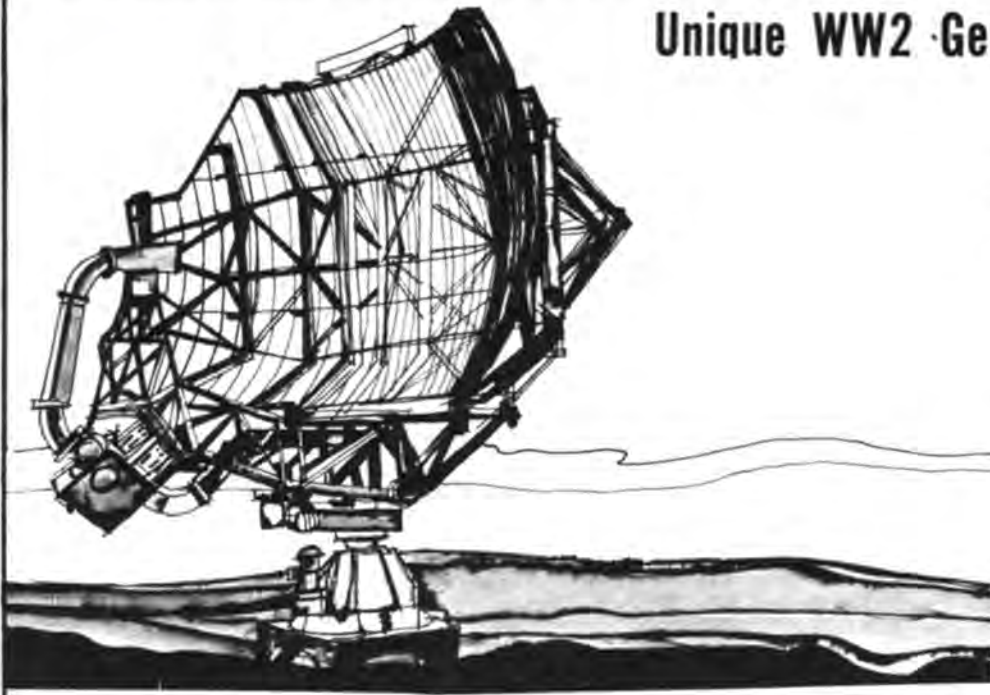
WEST POINT - 1941. L/R

Corporal Chamness who had been a R/O in WW-I, Sgt. Cone who had come to "WUW" in 1937, and Sgt. Don Masten, Sr. Sgt. Cone had the honor (?) of climbing the 190 foot towers to replace burned out lights, etc.

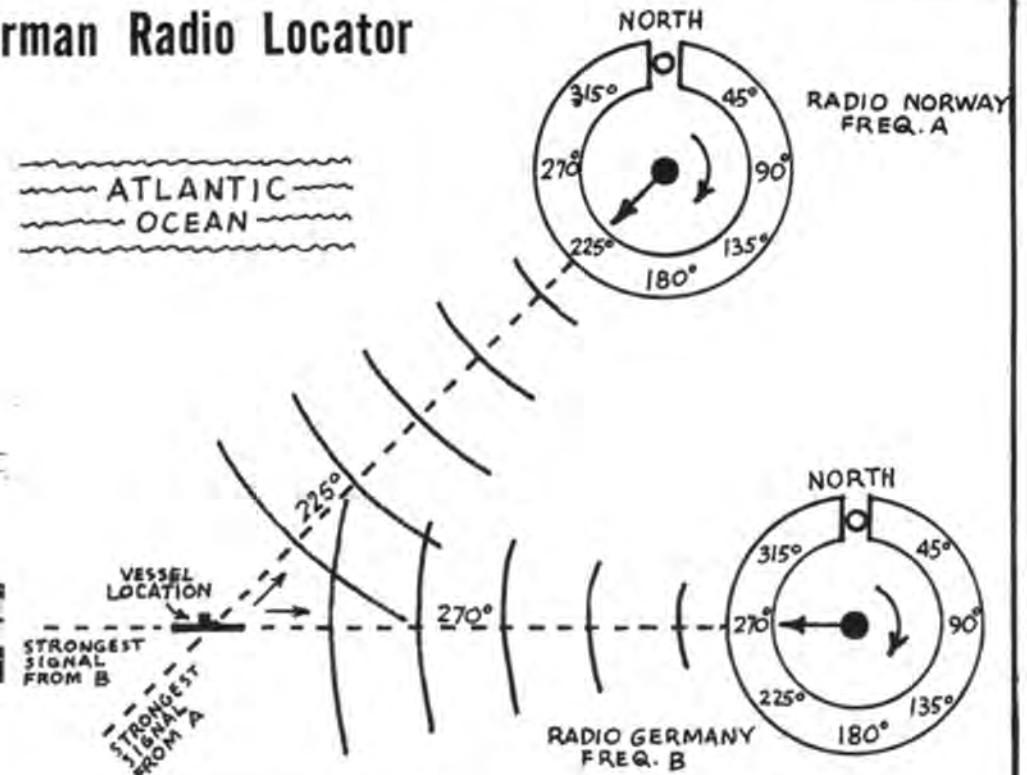
NOTE FROM DON MASTEN SR. (WZLEL)

West Point is 53 miles North of NYC on the west bank of the Hudson River. WUW located at West Point was a member in the WD Net (War Net). Other stations on the net were WVP - Governor's Island (NCS); WTW Ft. Monmouth and WYA - Mitchell Field. Operators at WUW held the highest 'coding in the Signal Corps as Radio Operators.

Unique WW2 German Radio Locator



BY D. K. deNEUF



Somewhere in a military file there must rest a technical treatise on a relatively simple radio location system operated very efficiently by the Germans during WW2. Our recollection is that it was designed for use primarily for submarines, but vessels, aircraft or even life rafts could utilize it. Only a stopwatch and a conventional shortwave receiver of almost any type were needed. These were used in conjunction with a special group of land radio transmitters which operated continuously. One group was located in Germany and, if memory serves, the other was in occupied Norway.

These transmitters emitted a steady signal, each on a different frequency. The feature of the system was that each transmitter fed a huge, highly directional beam antenna array which rotated in a complete circle exactly once every sixty seconds. This was accomplished by the array being constructed on a framework equipped with electrically-driven wheels which rolled over a circular track. When the array pointed exactly north, its transmission was interrupted for one second (see sketch).

Listening on the first frequency, an observer knew when the carrier break of one second took place, the array at that moment pointing north, and that it would rotate through 360° before again reaching the break point. The observer would start his stopwatch at the moment of the signal break, then listen carefully for the sudden surge in signal strength as the beam swept by him. At that instant he would stop his watch, and the time reading in seconds would be converted to the compass direction given in degrees. Drawing a straight line on a map at the angle of degree from the transmitter location indicated the observer's bearing from the transmitter.

CORRELATION TABLE
(simplified)

STOP WATCH FACE SECONDS	EQUIVALENT COMPASS DEGREES
0.0	0° (North)
7.5	45°
15	90° (East)
22.5	135°
30	180° (South)
37.5	225°
45	270° (West)
52.5	315°
60	360° (North)

In exactly the same way, using the frequency of the second (or third) station, he would obtain the bearing for a second (or third) line. The position of the observer was thus determined by the intersection of the lines.

Pinpoint accuracy of the position was dependent, of course, on several factors, including the radio wave characteristics and the skill of the operator in detecting the peak or surge of the signal. The average accuracy was reported to be more than adequate for the purpose.

My recollection is that three different frequencies, probably 5, 9 and 15 mHz, were used simultaneously to bracket the conditions of propagation.

- D. K. deNeuf (117-SGP)
WA1SPM - Box 329,
Southbury CT 16488



The Australians Have a Word For It - If You Speak 'Strine'

Australians talk in a blunt, pithy slang that owes more to the sheep farmer and swagman than to the dilettante. And that's the drum (truth).

The roots of the dialect lie in self-defining terms like "no-hopper," English rhyming slang "apples and pears - stairs," and aboriginal words like "coroboree" or dance, a party get-together.

Following are a few of the more common slang expressions travelers to Australia will undoubtedly encounter:

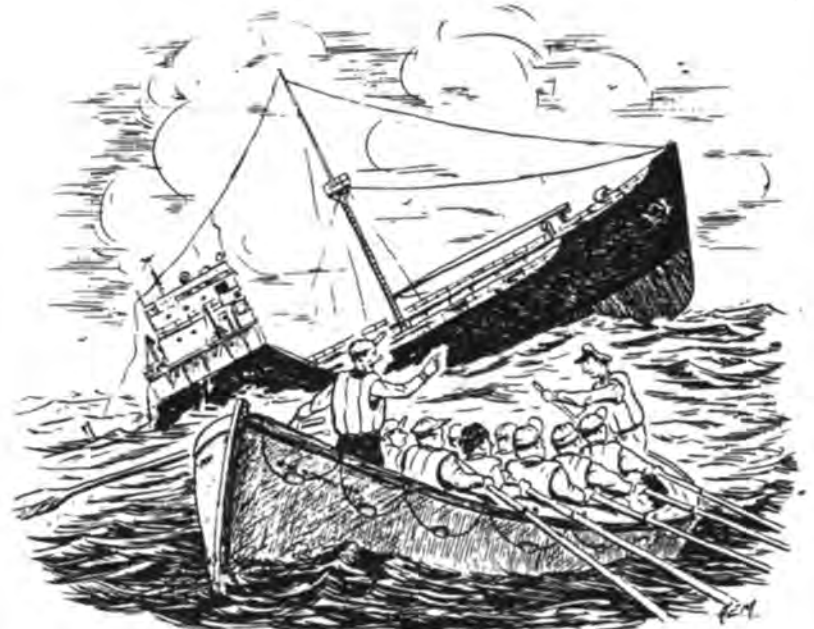
- cobber - friend
- boozer - pub, or one who frequents it too often.
- bluey - redhead
- bonzer - good
- buckshee - free
- boss cocky - top man
- ding - a swinging party

- fair go - reasonableness or good sportsmanship
- belt up - shut up
- boomer - male kangaroo (unlikely to be encountered in Sydney)

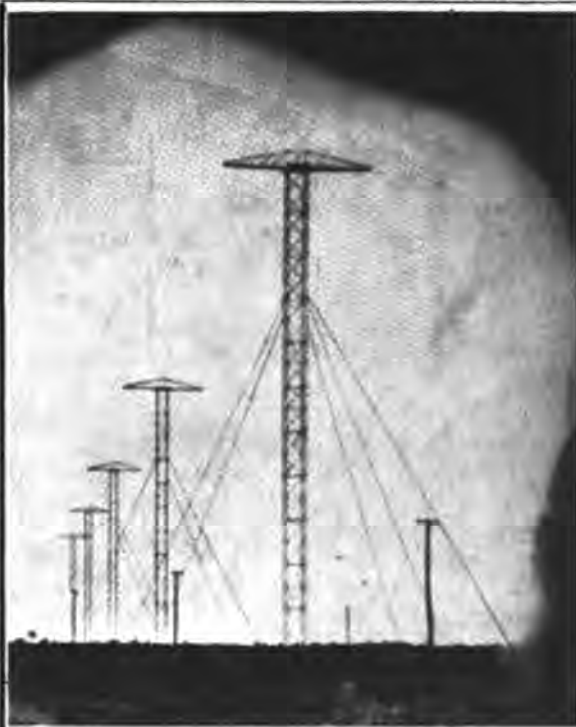
- cheese and kisses - the wife good-on-ye - term of approval
- drongo - simpleton or fool
- fair dinkum - absolutely true
- furphy - rumor
- kack - bad luck
- mate - best friend
- good guts - inside information
- good drop - excellent drink
- drink with the flies - drink alone
- hard yacker - hard work
- hit your kick - dig into your wallet
- nuttid out - thought out
- lashings - plenty (as of food and drink)
- doover - a "whatchamacallit" or anything
- left like a shag on a rock - left on your own

So give it a burl (try), don't rubbish (brush off) the sheilas (girls), enjoy the noggins (drink) and keep away from the no-hoppers (a nothing).

Above all watch out for the Black Stump, which, according to the Qantas dictionary of Aussie slang, is "a mythical landmark signaling the end of civilization."



"MISTER MATE! SIR! - I FORGOT MY OVERTIME SHEET!"



Rise, Fall and Recovery of Long Wave Radio

By Carleton F. Maylott

Marconi invented wireless telegraphy in 1895 and spanned the Atlantic Ocean with long waves in 1901 and 1903 during one-way and two-way experiments, respectively. Thereafter, for about 25 years it was generally believed that effective long-distance communication required long waves. Consequently, all commercial and government radio stations of all nations used wavelengths from 200 to 20,000 meters and relegated amateurs to shorter waves, which were thought to be relatively useless, at least for respectable distances.

By 1924, there were about 50 high-power radiotelegraph stations in the 10,000 to 20,000 meter class and at least 80 medium-power stations in the 4,000 to 6,000 meter class. Relatively low-power marine radio sets of the Marconi Wireless Telegraph Company of America were designed for standard waves of 300, 450, 600 and 800 meters. Most of these marine waves interfered somewhat with the new radiotelephone broadcast band, which was originally 200 to 545 meters of 1500 to 550 kHz and was later extended to 535 to 1605 kHz, as channels were allocated in terms of frequency instead of wavelength. Interference was avoided by using longer waves at ship stations; namely 600 meters (500 kHz), 706 meters (425 kHz) and 800 meters (375 kHz), for distress traffic, business traffic, and direction finding, respectively.

The high power stations, long used in transoceanic service, were rated at about 30 to 300 kw and had frequencies from 15 to 30 kHz. The medium power stations of shorter range were rated at about 10 to 30 kw and had frequencies generally below 100 kHz, corresponding to wavelengths above 3000 meters. Low-power short-range stations such as shipboard and broadcast stations were usually rated at 1/4 to 2 kw, and used wavelengths well below 1000 meters or frequencies well above 300 kHz. However, 200 meters and down was strictly amateur territory.

Short waves were unwanted for about a quarter of this century. Even amateurs tuned their transmitters near the upper wavelength limit of 200 meters, hoping for best results. Then, in the 1920's, conditions changed. In 1921, amateur signals were heard across the Atlantic on 200 meters, but two-way communication was not accomplished until late 1923 when American and French amateurs conducted a successful 100 meter test. This inspired amateurs to try even shorter waves. By 1924, many amateurs were operating not only near 100 meters, but also on 80, 40, and even 20 meters. Unlike long waves, which were usually stronger by night, some short waves were actually stronger in daylight. With increased range, members of the American Radio Relay League, founded in 1914, did much less relaying than before.



The one and only RCA Longwave tube set Mfd. by G.E.; installed by Hedley B. Morris (195-SQP(D)); acceptance tuning and adjusting by E.W. Engstrom, Kahuku, Hawaii - 1924-25. Operated on 9145 mtrs 50 kW. - Ckts Hawaii S.F. & Tokyo. (Hedley B. Morris Photo.)

These facts drew the attention of commercial radio-telegraph people, who soon invaded the formerly-neglected amateur territory of 200 meters and down. Everyone found that 20 to 120 meter waves were very serviceable for long-range communication. Then amateurs lost their freedom to choose any wavelength from 200 meters to zero or any frequency from 1500 kHz to infinity. Amateurs were confined to specified frequency bands and the 200 meter limit was reduced to about 160 meters. The minimum frequency was increased in steps from 1500 to 1715, 1750 and 1800 kHz. Only small parts of the so-called 160 meter band from 1800 to 2000 kHz are available to the specified states and territories, with day and night power limits. Fortunately, on most other bands, the original power limit of 1 kw is still in effect. Even novices may use 250 watts on their sub-bands.

During the second quarter of this century, radio matured rapidly. On January 7, 1927, the American Telephone and Telegraph Company opened to the public a new single-sideband suppressed-carrier transatlantic radiotelephone service. The development frequencies near 60 kHz or 5000 meters wavelength were soon supplemented by two-way short-wave channels. In February, 1927, the U.S. Congress passed an act setting up a Federal Radio Commission, later expanded to the present Federal Communications Commission. By June, 1927 this Commission had cured a chaotic condition which existed in the new broadcasting industry; it increased the capacity of the 90 available channels by re-allocating them in an orderly fashion, with due regard to frequency, power, time of operation, and location.

Also in 1927, an international radio conference, held in Washington, allocated all wavelengths between 5 meters and 30,000 meters to all commercial and government groups, and assigned certain bands to amateurs. In 1913 there were only 1200 licensed amateurs. By 1928 there were 17,000, and now there are nearly 400,000 in the U.S. Amateurs were never permitted to transmit on long waves or low frequencies but were often prepared to receive them for code practice, news, time signals, and weather information.

Now, for convenient reference, the entire radio frequency spectrum has been divided into decades known as very low frequency (vlf = 10-30 kHz), low frequency (lf = 30-300 kHz), medium frequency (mf = 300-3000 kHz), high frequency (hf = 3-30 MHz), very high frequency (vhf = 30-300 MHz), ultra high frequency (uhf = 300-3000 MHz), and extremely high frequency (ehf = 3000 MHz - 30 GHz). The vlf part of the spectrum has been largely deserted for many years. The low to medium part of the spectrum from 200 to 400 kHz, long used by aircraft radio range stations, has been dropping out in favor of vhf omnirange. The high frequency part of the spectrum has been in great demand for all long distance services, including international broadcasting, commercial radiotelegraphy, and the amateur cw and phone bands known as 10, 15, 20, 40, and 80 meter bands.

Short waves now provide much better services at much lower cost than the former vlf and lf radio channels. Short waves are much less vulnerable to static interference and permit the use of various kinds of modulation, not just radiotelegraphy. None of the vlf and lf stations had vacuum tube transmitters until about 1924; they used sparks, arcs, and radio-frequency alternators, none of which were suitable for voice transmission. Moreover, the frequency spacing of these early transmitters was very narrow -- often as little as 100 to 300 Hz.

Alternators worked best at frequencies below 30 kHz. Arcs worked best at frequencies below 200 kHz. Sparks worked well at all frequencies but produced broad damped waves rather than continuous waves, with one exception -- Marconi's time-spark continuous-wave generator. One of these generators had long use at Stavanger, Norway and had an output of more than 150 kw at a frequency of 24.74 kHz (12.12 km). Most spark transmitters had no more than 2 kw input and were used at medium frequencies on ships as late as 1934.

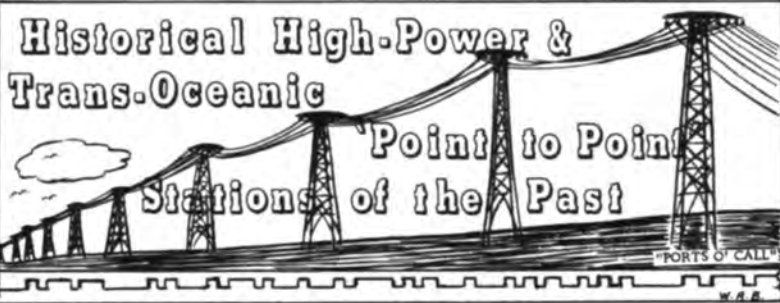
Many years before amateurs converted from spark to cw transmitters, long-wave stations were using continuous waves without much benefit of vacuum tubes, which were not plentiful until the 1920's. In order to make continuous waves audible, it was necessary to break up the oscillations at the receiver into audio-frequency groups. This was often done mechanically by means of a motor-driven commutator such as the Poulsen tikker or chopper, the Goldschmidt tone wheel, a rotary slipping contact detector, or a battery-driven buzzer. Another solution

(Continued on Page 13)



Historical High-Power & Trans-Oceanic

'Point to Point'
Stations of the Past



RADIOGRAMS
ACCEPTED HERE TO
ALL PARTS OF THE
WORLD



(Continued from Page 12)

was the heterodyne system wherein a small radio-frequency alternator, a local arc generator, or a vacuum tube oscillator having almost the incoming frequency was coupled into the receiving circuit, thus producing an audio beat frequency.

During the long-wave period, receivers were often upgraded. Marconi's magnetic detector of 1902 was replaced by Fleming's oscillation valve or diode detector of 1905, which was more sensitive. Both electrolytic and crystal detectors appeared at about the same time. DeForest invented the three-electrode vacuum tube in 1907 and the radio tube oscillator in 1915. Fessenden invented the heterodyne receiver in 1913. Alexanderson invented cascade tuning in 1913, triode modulation in 1914, and the radio frequency alternator in 1915. Many other improvements in circuits and vacuum tubes were made during the 1920's and later years. Shockley, Bardeen, and Brattain developed the transistor at the Bell Telephone Laboratories in 1948. This solid-state device has since then replaced vacuum tubes to a large extent.

After World War I, by U.S. Government request General Electric Company, a leader in radio developments, spun off Radio Corporation of America. RCA soon freed U.S. radio communications from foreign domination. Previously, the British-owned American Marconi Company and the German-owned Telefunken Company monopolized marine and transoceanic communications. With GE assistance, RCA built many high-power radio stations in the U.S. and

overseas. On the east coast, there were pairs of transmitters at Rocky Point, N.Y., Marion, Mass., and New Brunswick, N.J., all equipped with 200 kw Alexanderson alternators.

The Rocky Point station, known as Radio Central, had two huge antennas, each supported on six sturdy towers, 410 feet high and 1250 feet apart, with spreaders for 10 cables. The antennas were oriented toward Europe and South America, respectively. About 20 miles east, at Riverhead, N.Y., the central receiving station had two pairs of 7-mile spaced 9-mile Beverage wave antennas on wooden pole lines. These wave antennas were oriented for best reception of European and South American signals.

Such long wave stations required tremendous land area, and were costly to build and operate. These conditions inhibited the building of similar stations after the 1920's when it was clear that short waves were both economical and dependable. A few old stations were maintained for many years for various reasons, including possible use in emergencies such as short-wave fade-outs caused by severe magnetic storms, which might also affect the Atlantic cables.

On December 13, 1977, RCA Global Communications or Globcom, once called World-Wide Wireless, demolished the last Rocky Point tower which had stood for 56 years. On September 28, 1978, RCA announced the gift of 7100 acres of undeveloped Long Island land to the New York State Department of Environmental

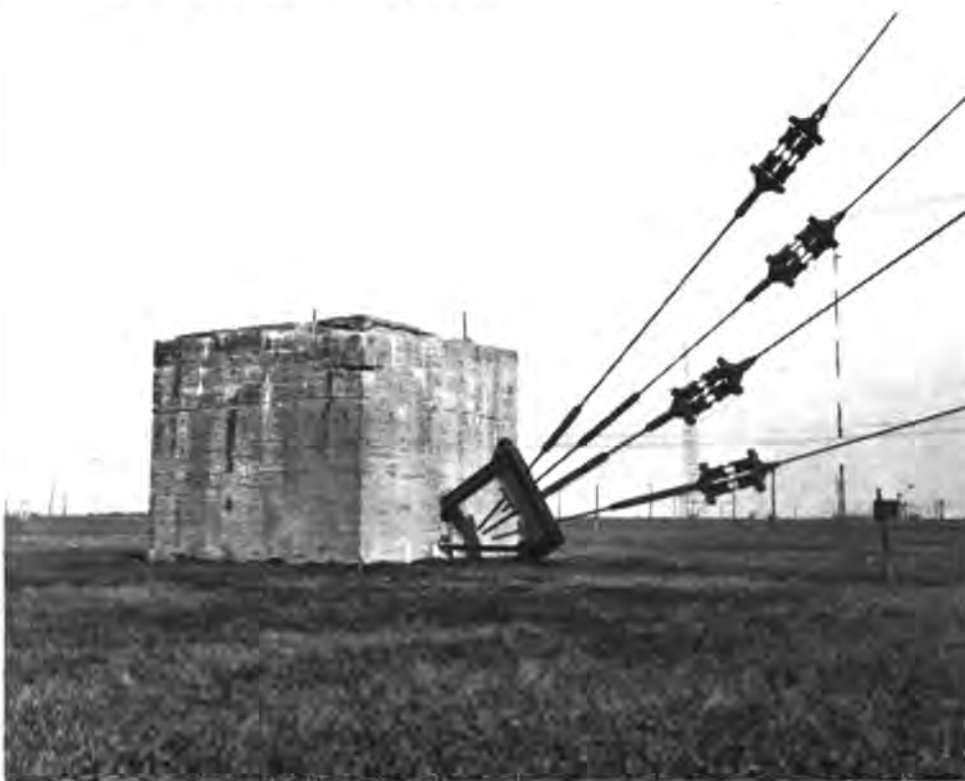
(Continued on Page 14)



The Aerial system at Marion, Mass. Thirteen 300-foot tubular steel towers support a 24 wire horizontal directive antenna, over 5,000 feet long. Tuning houses, similar to those at Tuckertown, are located along the length of the aerial. This station was set up originally to transmit to Stavanger, Norway. The receiving station was located at Chatham, Mass. and received from Naerboe, Norway. An extensive radial ground system of copper wires is embedded in the ground under the aerial.

Gaps in the ground wires have set fires in the peat-like earth, in the past, from excessive power used. On either side of each tuning house are frames that support a pulley and concrete counter weight arrangement for keeping the wires to the tuning houses taut. The system was set up by British Marconi in 1913 and, like the German scheme, was to be part of a world wide wireless empire. Pictures courtesy Lin. Cundall AWA.

Long Waves Maylott



These huge blocks of concrete, twenty-feet above ground and probably more underground, anchored the main guy wires. Each strain insulator is approximately seven feet long and weighs close to one-half ton. Close inspection of the construction shows that each insulator has four circular blocks, which are glass and mounted under compression.

(Continued from Page 13)

Conservation. This gift of unneeded land clearly marked the fall of long-wave radio and the end of an interesting era in communications history.

Long-wave radio had a great fall when it was dropped by the commercial radiotelegraph services which largely monopolized it until about fifty years ago, but it didn't die because other services remained and new services arrived. Long-wave radio survived and regained vitality because of several unique characteristics, one of which is dependability.

Short waves have skip distances and frequent fadeouts during magnetic storms, but long waves cover the world, day or night, summer or winter, on land or sea, at all altitudes and some depth in salt water. This explains the continued use of frequencies from 14 to 150 kHz by government and military services for cw and fsk (TRRY) communications.

Another important characteristic of long waves is their stability of propagation which increases as the frequency decreases. Long range navigational aids, such as Loran, use long waves for this reason. Loran A has used a frequency range of 1800 to 2000 kHz, and Loran C now uses a frequency of 100 kHz, which has proved more reliable. Another hyperbolic navigation system, named Omega, uses a frequency of only 10.2 kHz and operates eight stations on a time-sharing basis so that phase differences can be extracted from two or more locations. The USSR Alpha navigation system uses a frequency of 15.625 kHz.

A number of standard time and frequency stations use long waves. The standard frequencies are 40 kHz (Japan), 60 kHz (MSF, England and WWVB, U.S.), and 75 kHz (Switzerland).

England (BGR) broadcasts on cw at 16 kHz to the former British Empire. Some European a-m broadcasters continue to use frequencies from 150 to 285 kHz, as for many years. Some aircraft radio-range beacons still operate on frequencies from 190 to 400 kHz, but most U.S. aircraft use the vhf omnirange. Some marine stations still operate on frequencies from 415 to 510 kHz but higher frequencies predominate.

Amateur radio publications show that some radio amateurs have become interested in long waves recently. There is now a Long Wave Club of America with about 400 members. One manufacturer makes a vlf converter which moves 10 to 500 kHz signals into the 80 meter amateur band so reception is easy. No FCC license is required for transmitters on the 1750 meter band (160-190 kHz) if the power does not exceed one watt and the antenna is not longer than 15 meters.

Long waves present some unique problems in the design of suitable antennas, power supplies, transmitters, and receivers. Long-wave receivers are more vulnerable than short-wave receivers to atmospheric and man-made radio noise. Much progress has been made in solving these problems and the frequency spectrum below 500 kHz is fairly well occupied as compared with recent decades, so it appears that long waves are here to stay.

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- (2) Pete Bradley, N1ADX, QRP on 1750 Meters, CQ Magazine, Nov. 1979, pp. 35-36.
- (3) Long Wave Club of America, P.O. Box 33188, Granada Hills, CA 91344. Publishers of "The Lowdown", 50¢ per issue, free sample with SASE.
- (4) VLF Converter, Palomar Engineers, Box 455, Escondido, CA 92025. Advertisement in Ham Radio, Oct. 1979, pp. 93.
- (5) FCC Rules, Part 15, relate to unlicensed low-power transmission on frequencies of 160-190 kHz, 510-1600 kHz, and 26.97 - 27.27 MHz.



The first tuning house from the station, showing insulators with corona rings, feeders to the aerial and connection, through a large copper sleeve, into the tuning house. The rings are about two feet in diameter and the insulators about five feet long.

The Rhyme of the Ancient C-3

The following verses were conceived and put down on paper by M. D. MacMahon, Radioactive Officer, S.S. STEEL ARTISAN.

Though a woman you see in Lattakia
Makes saliva rise up in your trachea,
Don't whistle a note
If you value your throat—
That's her husband who's standing in backya.

Those places abound in Beirut
Where a sailor can sample the fruit,
But he pays through the nose
For a Lebanese rose
And there's tax on the sniffing, to boot.

In Aqaba, City of Wrath,
The plumbing consists of a path
And polite Arabs say,
As they turn down that way,
"Pardon me, while go to Elath."

Every merchant in business in Djeddah
Follows this rule to the letter:
A pilgrim pays twice
The usual price
And a sailor pays triple or better.

The laws of the town of Hodeidah
Ban liquor and even hard cider,
So they drink yemenade
As they sit in the shade
Singing "Diddle De Diddle De Dida."

This behavior might cause an outsider
To conceive that some local resider
Manufactures home-brew
But this could not be true
For there's not a bathtub in Hodeidah

In the African port of Djibouti
They sell brandy without any duty.
They've got brandy of cherries,
of peaches, of berries,

The opposite case is Dammam,
Where they fine you for buying a dram.
For cognac the par
Is a C-note per star.
Stay drunk and you won't give a damn.

In the village of Bandar Shapour,
The children play games we deplore
When the current allows,
They sail model dhows
In the sewers that flow past their door.

Change follows change in old Kuwait:
When Cadillacs spawned at such a rate,
They set a limit, Arabian style,
Of two pedestrians per mile,
For women, of course, the bag is eight.

The Persians are famous as mystics
But though I cannot quote statistics,
Their penchant for dealing
Is also revealing
Of national characteristics.

In Khorramshahr, whenever you're dealing
With a merchant who tells you with feeling,
He'll lose at your price,
It's just a device
To conceal that he's guilty of stealing.

How fortunate sailormen are,
They voyage to countries afar.
But where are they found
In ports the world round?
At the noisy "American bar."

So it is in the port of Livorno,
They don't even exchange a buon giorno
But they sit drinking beer
To get rid of their lire
And don't care if they never ritourno.

Here's to our last destination:
New York and the Quarantine Station
And an end to the strain
To that part of my brain
That makes rhymes for your edification.



Picture Brides from Japan

Dick Johnstone*



Here follows what could be termed a story or a narrative but better still just a plain bit of communication HISTORY, probably unknown by many and forgotten by most.

The action took place, let us say, from 1914 through 1917 and, as this is written in 1969, half a century has gone by the board.

During those years Japanese immigrants were permitted to enter California in limited numbers so to work as farm hands and laborers.

The Japanese flocked to California and were to be found in agricultural areas in great numbers all over the state.

But alas, something was wrong--someone had overlooked a detail or two. There was a problem. This problem was readily solved by using the "mails" to procure the females.

In the Japanese homeland, women who desired to come to California sent their pictures to prospective California farmhand Japanese bridegrooms. The recipient of the picture would immediately make arrangements for the "picture-bride" to take passage on a steamer and to notify him by wireless when her ship would arrive in order that he must meet her at the dock in San Francisco.

At that time the Pacific Mail Steamship Company had seven large liners plying between the Orient and San Francisco, namely the SS MONGOLIA (WWN), the SS MANCHURIA (WWE), SS KOREA (WWK), SS SIBERIA (WWU), SS CHINA (WWA), British SS NILE (VRE), British SS PERSIA (WWV-MBA).

The Japanese steamship line, Toyo Kisen Kaisha had four liners on the same run--the SS SHINYO MARU (JSH), SS TENYO MARU (JTY), SS CHIYO MARU (JCY) and the SS NIPPON MARU (JNP).

The "picture-brides" took passage on these liners. At least one ship a week would arrive in San Francisco with from 100 to 200 brides to be. Each bride to be followed the explicit in-



structions of the prospective "hubby" and filed a wireless message as soon as the ship left from Honolulu for the coast, stating when the ship would dock in San Francisco.

The addresses and signatures were of course all Japanese names. This sample will give an idea.

```
# 8  JSH  ck 9  SS SHINYO MARU
                                date
TO:  HIROKATA  NAKEOTA
                                BOX 7XB
                                DINUBA (CALIF)

ARRIVE TUESDAY COME

(Sig) NIKEO
```

All of these ships, in those days, used spark wireless equipment and crystal detectors. All these messages were sent to the Marconi KPH station at Hillcrest, San Francisco.

Sometimes it would take two or three midnight to eight AM watches to clear this traffic, as other ships had messages too, and also interference and atmospheric disturbances were usually present.

It was a big weekly chore for the KPH operators who, after accumulating this batch of traffic, then had to send each message to the Western Union downtown San Francisco office. The KPH Western Union call was "PH" and we would give the "SF" operator notice to make up a book as 90% of the "Picture-bride" messages had the same text, and in each case from the same ship.

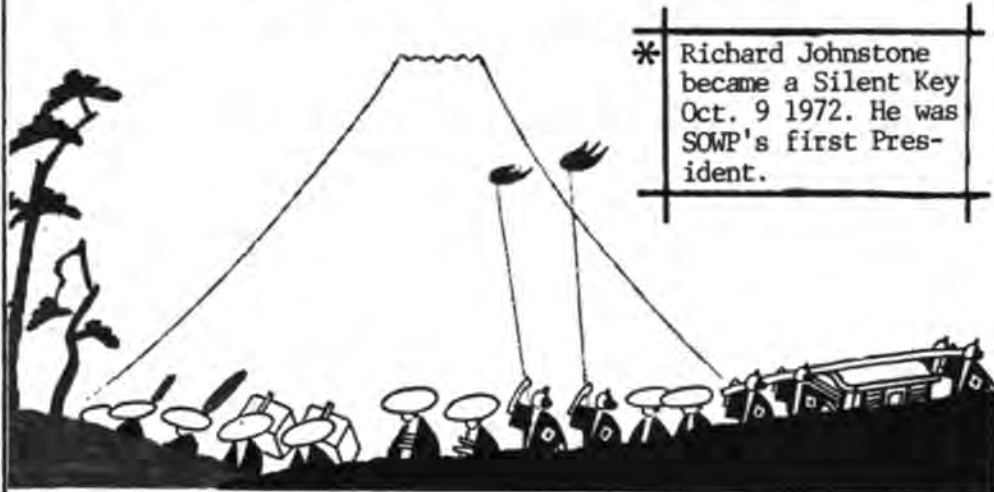
Considering the handicaps involved, and the fading out of the ship's signals, atmospheric and man made interference, the re-transmission three times, from the ship to point of delivery, few were undelivered and very few required the GBA service. (Give Better Address)

This indeed was an unusual experience, perhaps unknown and also forgotten by many over the years. I certainly cherish the memory of my participation as a midnight to eight in the morning operator at the old Marconi Wireless station KPH and the never to be forgotten clinky-clack of the Morse sounder with its tobacco can amplifier--a fascinating sound, seldom, if ever, heard today on commercial communication circuits.



--Richard Johnstone "K6FZ"

* Richard Johnstone became a Silent Key Oct. 9 1972. He was SOWP's first President.



"Definitions" of an 'Old Salt'

THE CAPTAIN

is said to be a man who knows a great deal about very little ... and he goes along, knowing more and more about less and less until finally he knows practically everything about nothing.

CHIEF ENGINEER

on the other hand is a man who knows very little about a great deal and keeps on knowing less and less about more and more until he finally knows practically nothing about every thing.

SPARKS

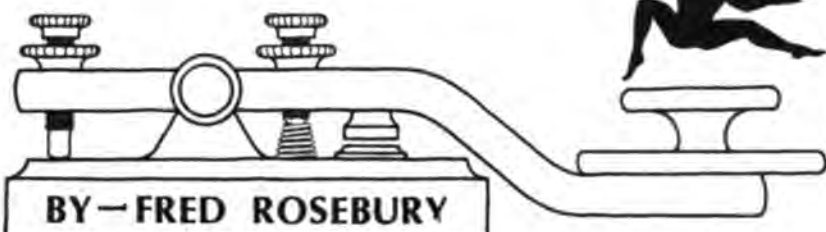
starts out knowing practically everything about everything and ends up knowing nothing about nothing ... due to his association with Captains and engineers...

Submitted by ... Jock MacLaren 1111-P

(Says "Jocko" ... " On pain of being hung-drawn- and - quartered, the author of the above 'Nut-i-cal' verse, whoever it was, signed the gem ... "ANONYMOUS"



The Rustbucket Herald



THE RUSTBUCKET HERALD by SOAP OPERA-TOR

FR

In the days of the New Bedford whalers and the old clipper ships of the early nineteenth century, mariners often didn't know what was going on in the world for months - even years at a stretch. The only way they could get some news was when they encountered another ship that was more recently out of port and its skipper had the courtesy (not too often) to send over a boat with newspapers and magazines that were less than a few months old.

One of the great boons of the new-fangled wireless, in addition to the foremost one of providing a means of saving life at sea, was that of disseminating important world events almost as soon as they happened, to ships on the far-flung oceans.

Aboard the old freighter SS HOWICK HALL/KLT bound from Baltimore to the West Coast in 1922, the longest leg of the voyage was from Panama to San Diego, which took eleven days. The radio operator was not idle during that period. In addition to his receiving frequent weather and navigation reports sent out by scattered local stations, time signals from NAA, and listening for other bits of information, advices and possible messages pertaining to the vessel's movements, he endeavored to keep the ship's personnel supplied with news of the world every day.

Although the rule book didn't say anything about it, there was a kind of implicit law that the news was to be obtained at least once every twenty-four hours - if possible.

That particular leg of the voyage could be difficult for receiving press - or anything else - at that time, especially off the coast of Nicaragua, where for some reason or other static was often heavy, continuous and ear-drum busting. It was not as bad on the very long wavelengths, that is, those over 10,000 meters, as on the shorter ones (600 m) where most of the radiomarine communication took place.

But many ships were not equipped with tuners that went much above 3000 meters. To a limited extent, word had got around that with a rather simple device hooked up to the ship's standard receiver, it became possible to tune in NSS and other long-wave, high-powered (100 kW or so) land stations using the Poulsen arc or the Alexanderson alternator and transmitting an undamped or c.w. signal in the neighborhood of 17,000 meters (about 18 kc). (A nice neighborhood to be in if you could get it.)

This gadget consisted of three store-bought honeycomb coils of the proper inductance, plugged



"IT WASN'T SO BAD WHEN THE SKIPPER WAS SATISFIED WITH THE PRESS, TIME SIGNALS AND THE WEATHER REPORTS... NOW HE WANTS THE 'DEAR ABBY' DAILY COLUMN."



into a small contrivance which made it possible to adjust the coupling, and a variable condenser, in a one-tube feedback oscillator circuit in which one of the coils operated as a tickler. The whole business at that time cost only a few dollars. In essence it was a set of loading coils and a BFO which fed into the Navy Standard (or other) tuner, detector and audio amplifier, to produce a signal in the headphones.

It only took once or twice when an operator on another ship would ask, "Got any px OM?" (We were all very young in those days.) Upon which the R/O who had the "thing" would send what he had copied the night before, and which he had already transcribed on his mill: an original and several copies, distributed to the various messrooms; a kind of abbreviated newspaper, a minitabloid, without ads but sometimes with little sketches or cartoons. And having transmitted this news, it was not long before he found that other ships within range had copied it as well - or some part of it. There would be, for example, a request: "Pse QSM" (repeat) "all after 'Congress passed a bill making it illegal for . . . 'etc."


So it was evident that not every ship had one of these operator-owned gadgets. In some places the only way they could get the baseball scores was by cadging from one who had. Therefore the owner of the gadget was soon and often besieged (or beseeched) by the others to QSO PX. And as the use of such a device, for some reason known only to the powers that be, was forbidden, i.e., against the rules, and as most operators were not sticklers for the rules anyway, the transaction of asking for and relaying press was seldom, if ever, recorded in the log.

Consequently there was a lot of business filling the air waves and hence a lot of use of the transmitter. The ship's d.c. generator - for lights, etc. - was seldom operated much above 90 volts, as a result of the chief engineer being a good Company man, and so excessively stingy with steam. If he knew that his precious steam was being converted into dots and dashes, he didn't complain since he may have been under the delusion that it was all of vital importance, like the clatter of the telegraph sounder in a railroad station. Also it may have been a serious matter for him to know how the stock market was doing.

It was common practice for the R/O to use the emergency storage battery for transmitting, charging it during his sack time. Usually the battery, a lead-acid, 210 ampere-hour type, put out a full 120 volts. It was arranged in two banks of 60 volts in such a way that by throwing a multipole switch from one side to the other, the banks were in parallel for charging and in series for use. An ampere-hour meter on the charging panel gave a rough indication of the state of charge, but it was also necessary for the R/O to allot time at frequent intervals to check the water level and the specific gravity of each of the sixty cells and to see that the terminals were tight, free of corrosion and well greased; also to repair any damage to the cables. You see, the insulation contained beeswax, a favorite article of diet among the ship's freeloading rodent (*Mus rattus*) passengers. God only knows how they got into the battery compartment.

Why weren't the ship's mains used for operating the transmitter as a rule? Well, at 90 volts the regulation and efficiency of the steam-driven generator weren't too good. It didn't matter much with the lights. (When you were in port you went and bought a 100-watt lamp to replace the miserable 25-watt mazda in your desk light.) But the 2-kW transmitter was just a mite too much of a load for it, especially at night when lights were on (and maybe fans), and the best radio communication was to be had. As a result, when the key was pressed, the 500-cycle spark would drop down through 400, 300 or even lower, sounding like the wail of a moribund banshee.

(Continued on Page 20)



NMN: PORTSMOUTH

A Mainstay of AMVER Communications



NMN

supervision of a chief petty officer. The radiomen stand 12-hour watches with a two- or three-day break after every two watches.

According to Chief Warrant Officer John F. Bischoff, NMN's operations officer, morale is good despite the station's location "in a swamp 25 miles from nowhere."

The crew has access to a vast array of recreational facilities provided by the Navy. They include a gymnasium, swimming pool, movie theater, picnic and camping grounds, woodworking and ceramic shops, racquetball and tennis courts, bowling alley, library, auto shop, archery and firing ranges and ball fields. There are two stocked ponds on the base where the fishing for bass and catfish is good.

In addition to fish, various forms of wildlife keep things interesting for the crew at the station. Deer are plentiful at both the receiver and transmitter sites. Snakes, including poisonous copperheads and rattlesnakes, are common as well. Their presence has put a damper on night-time jogging. "You never know what's on the road," Bischoff said.

The forces of nature sometimes wreak havoc with station operations in other ways. Lightning plagues both the transmitter and

For years merchant ships of many nations have sent messages to AMVER via NMN at Portsmouth, Va., the linchpin of Coast Guard communications in the Atlantic.

Although the call sign NMN is an old and familiar one, the facilities behind those three letters have changed over the years. The present station was commissioned in 1976 assuming the call sign and duties of its predecessor at Pungo, Va., as well as the duties of Radio Station Washington/NMH which was closed down.

Constructed at a cost of \$8 million, the station incorporates the latest in automated high-frequency and medium-frequency technology and is expected to serve mariners well into the 1990s.

The primary mission at Portsmouth is to support Coast Guard operations as well as the maritime operations of other government agencies. In its capacity as the control station for the Atlantic Area Communications System the station coordinates rapid, reliable and secure communications for Coast Guard units throughout the western North Atlantic.

Among CommSta Portsmouth's most important activities are the maintenance of a communications guard on specified international maritime distress frequencies and the broadcast of weather information, storm warnings, hurricane advisories and Notices to Mariners.



NMN's transmitter site at Pungo, Va., was an airfield during World War II. The Coast Guard's building sits just off a deteriorating concrete runway.

NMN is the keying station for the U.S. Navy's NAM Morse Code broadcasts of hydrographic and weather information and NAVAREA IV warnings. The broadcasts keyed by Portsmouth are transmitted by U.S. Navy stations around the North Atlantic and Mediterranean. NMN monitors each remote transmitter daily. Ships noticing transmission faults should report them to NMN so that repairs can be made as soon as possible.

The station also receives weather observer reports from ships and relays them to the National Weather Service. NMN receives AMVER messages on 8, 12 and 16 MHz as well as Simplex Teletype Over Radio (SITOR) and single sideband. These messages are relayed to the AMVER Center in New York via teletype.

In October 1981, a typical month, NMN sent a total of 8,738 messages of all kinds and received 16,268. Of those received 2,240 were AMVER messages.

NMN's receiver site is at the U.S. Navy Security Group Activity Northwest, 35 miles southeast of Portsmouth in the Great Dismal Swamp. The Coast Guard has 210 acres of property within the Navy's 4,800 acres. Approximately 200 acres are used for the receiving antennas and the operations/administration building. The remaining 10 acres are for 36 units of family housing and quarters for 48 single enlisted personnel.

The operations building contains approximately 13,000 square feet of floor space of which one quarter is devoted to actual receiving operations. The remainder is used for offices, storerooms, mechanical rooms and repair shops.

The operations center has positions for 12 operators. Each console can automatically control four transmitters and their associated antennas. Although each console was equipped with specific operating functions in mind, most are capable of all operations: voice, radioteletype and Morse Code. There are 48 receivers available, four at most positions.

Radio operators can select or change transmitting frequency or antenna, mode and power in less than 13 seconds. They can also change receiving antennas instantly. Video display units at each position tell the operator about transmitter, antenna, frequency,

power and mode and any other general information desired. The silent periods on 500 kHz and 2182 kHz are shown on the screen automatically.

NMN's transmitters remained at the old station site on 205 acres in Pungo, near Virginia Beach. A new building and antennas were erected in 1976, however. Driving time between the transmitter and receiver site is nearly one hour over some of the poorest roads in Virginia.

The building at Pungo contains a transmitter room, transmitter control and antenna matrix room, lounge and kitchenette, various mechanical rooms, storerooms and repair rooms.

Fifteen 10-kilowatt high-frequency transmitters and three 2-kilowatt medium-frequency transmitters are installed. Wiring and space for additional transmitters are available for future expansion. A computer automatically tunes and controls the high-



Screens at each operator's console display a variety of information including transmitter, frequency, antenna, power and mode.

frequency transmitters, performs high-level radio frequency patches and assigns transmitters to operating positions.

The station's crew includes nearly 90 men and women under the command of Cmdr. Benjamin M. Chiswell, a fifth-generation Coast Guardsman. Forty-eight radio watchstanders are divided into four watch sections, each under the

receiver sites, especially in the summer when thunderstorms are common. Bolts of lightning often "fry a piece of the station," Bischoff said.

Despite occasional adversities Communications Station Portsmouth continues to be one of the most reliable stations for AMVER participants year after year.

A talk with a man who sailed the seven seas

by Carmel Finley

"We shipped out of Hong Kong with a cargo of rice for Cuba..."
 "Five of us went ashore in Guaymos..."
 "I'd had the 'flu' coming out of Bangkok and when we put in at Yokohama..."
 Talk with a man who has worked on the sea flows like that, names and places and more names, boats that are no longer and a world that in some ways exists no more.
 Ralph Hazleton went to sea in 1917 and again in 1967, both times as a radio man—or 'Sparks,' as radiomen are called. In between he learned to fly, was an air traffic controller, lived all over the United States and retired to Lincoln City. From an upstairs window on his Ebb Street home, he looks out over the sea and whiles away some of the hours with his ham radio set, perhaps in much the same way he first started experimenting with radios when he was 12 years old.
 He'll be 80 in April and radios have changed a lot.

hunt deer.
 "They issued us some rifles and we walked and walked and walked; didn't see anything alive. We ran out of water and headed for this farm when we heard this guy yelling a us—he was a Mexican army officer and he had a Mauser trained on us."
 "He told us to lay down our arms but we couldn't understand him—we finally got the message and tried to tell him we just wanted some water. But he insisted on taking us to the commandant and they locked us up for a week."
 At the time Mexico was a neutral country and Hazleton and his party were violating that neutrality because they were armed.

vice job with the aeronautics administration. The job took him all over the western states and he raised three children. He was in Idaho when he got his private pilot's license at the age of 52.

by Nome, near Siberia. Then I went to Nenama, that's near Fairbanks. I was station manager and I retired out of Alaska. That was 15 years ago."
 Retirement didn't last very long. In 1967 the U.S. was becoming embroiled in the Vietnam war.
 "It reached the point where the U.S. could not sail cargo ships because of a lack of radio operators. The ships were tied to the docks. So I called the radio officers' union in Oakland and told

them I used to have a commercial license."
 The union told him to get the license renewed, got his security clearance from the Coast Guard and told him his ship would be leaving Charleston, S.C. in 24 hours' time.
 "I was a retread—that's what they called us," Hazleton said. "They hired us because there was nobody else. I made five trips."

"In 1955 Dana said, 'Let's go to Alaska.' I was against it at first but I kept thinking about it, so I applied to go—I wanted isolation, no city duty."
 "They sent me to Moses Point, that's

"The captain moved the ship into the harbor at Guaymos and he'd come ashore every day to talk to the commandant. They finally let us go and we took off for Peru."
 He left the Navy in 1919 and shipped out of Portland on small freighters making coastal runs. "We carried everything—general cargo, lumber, grain, flour."



"Sparks"

Ralph Hazleton spends part of each day with his radios, talking to friends all over the world. He has been interested in radios since he was a child. (Staff photo)

"When I told the captain it had been 35 years since I was on a ship, I thought he was going to go nuts."

Hazleton was 17 when he joined the Naval Militia as a professional radio operator. When the United States entered World War I in 1917, he was mustered into the navy. He spent the first five months on the USS Oregon battleship and finished the war on the USS Marblehead.
 "I was radio man on the Marblehead and we were cruising south—Mexico, Central America—looking for German raiders. If we challenged a ship and she didn't stop, we'd fire a shot with an eight-inch cannon, mounted on the deck," Hazleton recalled.
 "We'd been down there three months and it was hotter than heck and everybody was tired, so we put in at Guaymos, in Mexico, east of La Paz on the mainland. Five of us went ashore to

He made some longer voyages as well and one he remembers was to Cork Island, part of Ireland.
 "The Irish were fighting a war of independence. The island was under marshall law and British patrols were in the streets every night. We were at a pub at the head of the dock and heading back to the ship when the third assistant engineer was shot in the chest.
 "Everybody was frightened to death to leave the ship. We got out a bottle of whiskey and poured that into him until he couldn't feel the pain, but it was daylight before we dared to go out for a doctor."
 He kept sailing until 1931, when he married his wife, Dana, in Portland. The Depression was coming, wages were low and he applied for a civil ser-

The above story by Carmel Finley was published in the Lincoln City (OR) NEWS GUARD on Jan. 26th 1978. Ralph's first assignment was in 1915 aboard the USS MARBLEHEAD/NGK.. He served many years on trips that took him all over the world.

He was nearly 70.
 "I hadn't been on a ship in 35 years. I was praying someone would be there to give me some pointers—radios didn't even have tubes when I left and there was all this stuff like VHF's—but he (the radio operator) left the ship the minute they dropped shore and I was on my own."

Message in bottle answered across Pacific

The NEWS GUARD

Lincoln City, Oregon.
 Thursday, March 23, 1972

Between 1920 and 1969 Ralph Hazleton of Lincoln City made 30 trans-Pacific crossings as a radio officer in the Merchant Marines. With each crossing he'd throw a few message-carrying bottles over the side of the ship, watch them fall into the ship's wake, then rapidly disappear from view.
 He released perhaps a hundred bottles over the years, dating and locating each toss with a request for the finder to notify him at a given address. The years passed, and Hazleton had not had one response from his efforts.
 Monday, however, the now-retired Merchant Marine received the following letter:

Dear Mr. Hazleton:
 On March 8, 1972, I found a Sunnybrook Whiskey Bottle that had washed in on the south shore of Wake Island. The inside was one you had thrown overboard from the S.S. Hermit.

I am sending you a photostatic copy of the note as I would like to keep the original as a souvenir.
 As sea water had got into the bottle, some of the note had disintegrated. The year it was thrown was one of the missing portions and I would appreciate it so much if you could remember the year and would drop me an air-mail card with the information.
 We get so little debris on Wake, especially anything of glass, that it is really a thrill to pick up something of this kind. Wake's entire shoreline is coral rock plus a huge coral reef surrounding the island. The note came in a relatively calm day and came from the south since we had a rare south wind. The Northeast Trades prevail almost constantly and the south wind comes maybe only five or six days a year.
 I am happy your note found its way to tiny, remote Wake.
 Sincerely,
 Joyce Patterson
 Wake Island

Hazleton cast the bottle from a freightship carrying ammunition from Wilmington, North Carolina to Guam in the year 1967. He was approximately 500 miles west of Hawaii when he released the "bottle-gram." If the bottle traveled directly to Wake Island, it crossed about 1500 miles.
 It is not an everyday occurrence to find a message in a bottle. One might consider himself lucky, in fact, if he were to find one in a lifetime. Therefore it is edging on the incredulous that Mrs. Ralph Hazleton would be the recipient of another bottled message.
 Three years ago she and her husband were up on a Neskowin Beach, she clad in a bright orange slicker outfit and he in an olive green set, scouring the shoreline after a storm.
 "There were plenty of beachcombers out," she said, "but evidently no one had bothered with this one crumby-looking bottle. I picked it up, rubbed off the sand and peered inside where I caught sight of a piece of paper. We couldn't get it pruned open. Ralph finally had to break it. Because it was raining hard and we didn't have anyplace else to put it, Ralph just tucked the note under his cap and we kept beachcombing."
 When they returned home and dried out the note, they found that the sender was from England.

Dear Ralph,
 It was with much surprise and delight I received your letter, as it is four years since I was in the Merchant Navy and had long since forgotten about the 'bottle' incident.
 The position I dropped the bottle in the sea was about 500 miles from the coast of Tokyo in Japan.
 It was the summer of 1964.
 The ship was the Stanwear and we were tramping from Cuba to Japan and India.
 Yours sincerely,
 Gerald Holt
 Leicester, England

From all appearances, then, one might gather from these tales of England, Cuba, Indian Japan, Wake, that Lincoln City has become the focal point for a series of international incidents... of the nicer sort, to be sure.



"When I told the captain it had been 35 years since I was on a ship, I thought he was going to go nuts."
 It was on his second trip that he had the 'flu.
 "I'd had the 'flu coming out of Bangkok and when we put in at Yokohama I told the captain I had to see a doctor. He said not to worry and he wouldn't let me go ashore. We left for San Francisco the next day, a nonstop trip, and I stayed in bed.
 "The captain began to get worried and finally he said, 'Sparks, can you send a couple of messages for me? I'm going to turn around and take you back to Japan.'
 He was the only English-speaking person in the hospital.
 "The Japanese nurses were in and out with English dictionaries all day. They'd come in at lunch and sit on the bed and talk English and try to teach me Japanese."
 "They hired us because there was nobody else."

His last ship left Portland with a load of wheat, bound for India. The ship refueled in Durban, South Africa and set off for Texas.
 "Texas was the end of the voyage, so I'd made it around the world," Hazleton said. "Then I decided to quit for good—but you know, the money was fabulous and those salaries are killing the merchant marine."
 He confines his ship activity these days to going out on charter boats after salmon.
 "And I do a lot of beachcombing. I listen to the ham set every day and keep in touch with some other guys my age. I'll be 80 in April but I haven't got any stiff joints."

The REO looks at Distress Communications

Wm H. Lindsay - REO

"SOS SOS DE WHATEVER" That terse unmistakable Morse signal crackling out across the world's air waves is instantly, almost subconsciously, recognized by all radio officers the world over. By all radio officers only?

No! By all ham operators, by many deck officers, Coast Guardsmen, Boy Scouts, search and rescue buffs, military personnel and assorted others throughout the civilized world. It has been dramatized in words and song. It has saved ships and the lives of those aboard them. You, kind reader, must have seen TV and movie plays, or read fact or fiction dramatizing its heroic rescues.

Nevertheless, attempts have been and are being made to eliminate this time-honored lifesaver from the maritime scene. Some years ago a West European government made an attempt to eliminate Morse telegraphy for coastwise and nearby foreign-going ships. Currently in the United States the Federal Communications Commission has under consideration a docket that would eliminate the requirements for Morse telegraphy for U.S. coastwise vessels.

Are these moves justified? Does the savings of the radio officer's salary balance the lives that may be lost by a switch to another system that is not yet sufficiently proven in deep-sea practice? Are the radio officers and their unions that oppose these moves motivated solely by their own economic interests and lifetime identification with their jobs and the Morse code, or do they perhaps have some valid argument? Tough questions! The answers are of interest not only to the radio officers concerned, and those who pay their salaries but every seaman, no, to everyone in the maritime industry.

The author, as one of the radio electronic officers concerned, is, in this little article, going to try to put aside his own obvious economic interest and attachment to the Morse code and look at this matter in the cold light of reason.

Technical developments have brought forth modes of communication that may be much faster in terms of quantity of intelligence handled per unit of time, more efficient in man hours per quantity of intelligence, and just plain cheaper moneywise, specifically teletype and voice via high frequency single sideband mode, and VHF, and lately the development of satellite communications. Because these modes have been in use for many years in point to point service, and lately even in maritime service, it would be foolish for this author to dispute their efficiency for routine ships' business communications. On the contrary, he advocates their adoption by those ships that do not yet have them. But we are not talking here about routine communications. We are talking about distress messages. Then why the difference? If the modes are efficient for day-to-day communications and if the people involved are used to them, shouldn't they also be the best modes for distress?

The answer is an emphatic NO! In the first place, routine communications usually involve people who speak the same language with the same accent. The argument that the international code of signals provides for this has no validity. How many of you, kind readers, can immediately call to mind any of these voice signals other than the word "MAYDAY"? The answer is mighty few (include the author!). The fact that they exist in a manual somewhere on the bridge is not enough. We are talking about emergency transmissions right now! Anyone who has ever been involved in an emergency situation at sea, and this includes most seamen at one time or other, can vividly recall the circumstances, and can appreciate the foolishness of the idea that he is going to look up emergency phrases in the code book at the time the emergency occurs. Further, just who is to do this job? The Captain? The Mates? Every crew member will undoubtedly be fully occupied. Remember old "Sparks" is no longer there, in this hypothetical situation!

A good example of language difficulty occurred barely a year ago in the Straits of Juan de Fuca on the North American West Coast. A vessel with a Chinese-speaking crew entered the fog-bound Straits and was unable to communicate in a common language with the Coast Guard personnel manning the vessel traffic control system. This ship wandered all over the Straits, presenting a hazard to other traffic to the point where it became a local news item. And this was not a distress situation.

Imagine the confusion that would have occurred had a collision taken place as a result of all of this!

In the second place, the effective substitution of another distress communication mode assumes all ships that might be involved are equipped with that method and are prepared to use it. Whatever action is taken in this matter should be with international agreement and coordination, not unilaterally by one nation.

In the third place, any substitute method of distress communication should be by the technically simplest proven method. This is where Morse communication really shines! A radio-telephone transmitter can have its audio section distorting or even completely disabled and yet be capable of being keyed for Morse communication. Morse is still the most efficient user of available power and bandwidth of any of the present-day modes of communication. Further, the method of alerting by Morse, i.e., the international auto alarm signal and the equipment necessary to receive it have been around for some time. The auto alarm signal, four four-second dashes separated by one-second intervals, is about the simplest and most straightforward that can be devised. While Morse auto alarms sometimes malfunction, it is usually on the side of false alarms, not missed alarms. The fact that it is always followed by the time-honored "SOS" makes it practically foolproof.

On the side of the proposed radio-telephone alarm on 2182 KHZ, the author submits the following message copied on 500 KHZ on the Pacific Coast of the United States in February, 1980. The message is self-explanatory and needs no further elaboration. It follows:

XXX DE NOJ 292236 GMT -- DUE TO THE REOCCURRENCE OF AUTO ALARMS ON 2182 KHZ IN THE NORTH PACIFIC SINCE 25 FEB. REQUEST ALL VESSELS LISTEN 2182 KHZ ESPECIALLY BETWEEN THE HOURS OF 0600Z AND 1000Z. IF ALARM IS HEARD REQUEST ATTEMPT TO OBTAIN LINE OF POSITION OR VESSEL IDENTIFICATION AND CONTACT NEAREST COAST GUARD STATION. SIGNED U.S. COAST GUARD, JUNEAU, ALASKA.

Opponents can point to the elimination of radio-telegraphy on the Great Lakes. They do not point to the fact that lives have been lost on the Lakes since its elimination. But the Lakes situation is totally different from deepsea operations. The major users of the Lakes, Canadians and Americans, speak the same language in practically the same accent. Distances are limited. Exposure to rough seas, while not inconsiderable, does not compare with the ocean.

Perhaps by now you will agree with the author that Morse strictly for distress and backup communications may have its points, but you sympathize with the companies' complaints about the expenses of a crew member strictly for communication. There is no need to maintain a crew member strictly for communication. For many years now almost all radio-telegraph operators have been doing the additional job known in the Coast Guard and Navy as "ET" or electronic technician. This job has always included maintenance of all electronic communication equipment. Since World War II this responsibility has expanded to include maintenance of such essential navigational aids as radar, loran, automatic direction finding, depth sounder, etc. The vessel on which the author serves, a large automated tanker, has such a range of electronic equipment that there are times he is hard-pressed to find time for his communication duties. In order to do a really complete electronic maintenance job he would prefer to be relieved of all communication duties except in case of distress, or as a backup to automatic communications modes should they be installed. The unions involved early recognized this problem and proposed that 500 KHZ Morse watch be reduced to permit the use of REO's time for necessary electronic maintenance.

Some shipping company officials may point out the availability of shoreside technical service organizations. However, the author can point to the need for repairs at sea and to numerous occasions on which the best available shoreside technicians could not complete the required repairs before scheduled sailing time and left the author with the necessary materials to complete the job after sailing. One of these involved an FCC inspection wherein the inspector concerned was going to delay the sailing of the vessel until the required job could be completed. The shoreside technician involved convinced the FCC that the ship's REO could do the job after departure and an expensive

(Continued on Page 39)



A Flag for the Repose

By BOB OWENS

While serving in the U. S. Marine Corps in Vietnam on an operation taking place south of the demilitarized zone with the 2/4 (the Magnificent Bastards) of the Third Marine Division, we were hit pretty hard this one day, as a result of which there were several wounded Marines to be helicoptered to the Naval hospital ship, the USS REPOSE.

The second day I was aboard the REPOSE I had the pleasure of meeting the communication personnel and visiting the most immaculate radio shack I have ever seen. One thing is certain in life: good men and good coffee will always be best in a radio shack! Like the hospital ship's staff and men, the Communicators worked around the clock too. If they were not handling military calls and messages, they were working and making it possible for the wounded marines to call their loved ones back home via MARS. These communicators were all outstanding men who were most appreciated by the wounded marines aboard the REPOSE.

Everything on this ship was immaculate: hospital, shack and all!

On that ship I met one of the finest and most distinguished of gentlemen: Captain Nadbath, the hospital ship's commanding officer. During the conversation, Captain Nadbath showed me the Chapel aboard the REPOSE; he told me that this facility was in need of a flag to be placed behind the altar.

Upon returning to headquarters, Third Marine Division in Vietnam, I wrote a letter to my sister Carroll in Washington, D.C. Carroll's boss was Connecticut's U.S. Congressman St. Onge. In my letter I told Carroll about the wonderful work and the miracles which were being performed by the officers and men of the USS REPOSE. Carroll placed this letter in the hands of Congressman St. Onge.

On my second trip to the REPOSE I was escorted to Captain Nadbath's office. The captain told me that all the officers and men aboard the ship had been recognized for their achievement in the Vietnam conflict. They had been awarded a flag which had been flown over our great nation's capitol. Capt. Nadbath said that this was a first in naval history.

We then went to the Chapel to see this flag, which was displayed so beautifully on the bulkhead behind the altar. This banner could not have been presented to a more deserving crew on this earth than those aboard the USS REPOSE. To a great many marines, these people on the hospital ship made the difference between life and death.

As I sat in this small Chapel, I could not help but realize that this great country of ours and God go together hand in hand. I hope that everyone who uses the Chapel will also realize that this great country of ours is the only one dedicated to our living God since the very beginning of America and the beginning of manking as well!

This was the proudest moment of my life and career in the U.S. Marine Corps. ##

Rustbucket Herald

(Continued from Page 16)

Using the 120-volt battery (kept in topnotch condition) the regulation was solid and melodious.

And speaking about battery condition, there was sometimes a problem with distilled water which the R/O was enjoined to use exclusively to keep the cells up to the mark. When water was requisitioned, very often it was either not delivered to the pier by sailing time, or if it did come it sometimes had a suspiciously muddy or yellowish look and a moldy smell as though it had been scooped up from the bottom of Ole Mississippi'. Somebody ashore was less fussy about the rules than the R/O.

On that leg of the voyage and in other places in the tropics there were frequent passing rain squalls. The bos'n had rigged up a marvelous big canvas awning over the 'midships deck, with a large brass grommet in the middle. After a minute or so of a heavy downpour - to free the canvas of salt - the R/O would run out with a bucket to collect all the agua pura he needed. And more besides that, which didn't go to waste altogether. Armed with cakes of soap and towels, he and some other off-duty members of the all-male crew would take turns having a free and refreshing shower bath! ##

-- Fred Rosebury 1570 SGP

(Continued from Page 6)

AFRICA



SS. AFRICAN PILOT MOORED AT SPANISH ISLAND OF FERNAN-DO IN 1954.

Upon the completion of the voyage and the ship is once again entering New York harbor after two and one half months abroad it was always a great thrill for me to once again glimpse the 'lady holding the torch' - the Statue of Liberty.

After visiting abroad one can certainly appreciate being an American citizen of this great country of ours. During my travels overseas I have talked to many persons who would have liked to become American citizens if the opportunity had presented itself.

A wide and varied assortment of cargo is handled during the coastal run, which extends for about six weeks in duration: such as, Manganese Ore, Mahogany Logs (some of them being 16 tons heavy), rubber, latex, sisal, cocoa, coffee, sawn lumber, fishmeal, diplomatic mail, cars, heavy road-building equipment. The passengers came and left at the various ports-of-call. Most of them being students, teachers, and missionaries, but there were also other assorted types, such as, white hunters, zoologists, African politicians and just plain tourists. I found it quite fascinating to talk to these different types of people and listening to their particular philosophies on life.



SS AFRICAN PILOT - 1954
Passengers carried (12).
Man on left was a prominent
Ghana politician at the time.



DOTS AND SPLASHES

Edited by RALPH C. FOLKMAN

THE BRINY DEEP

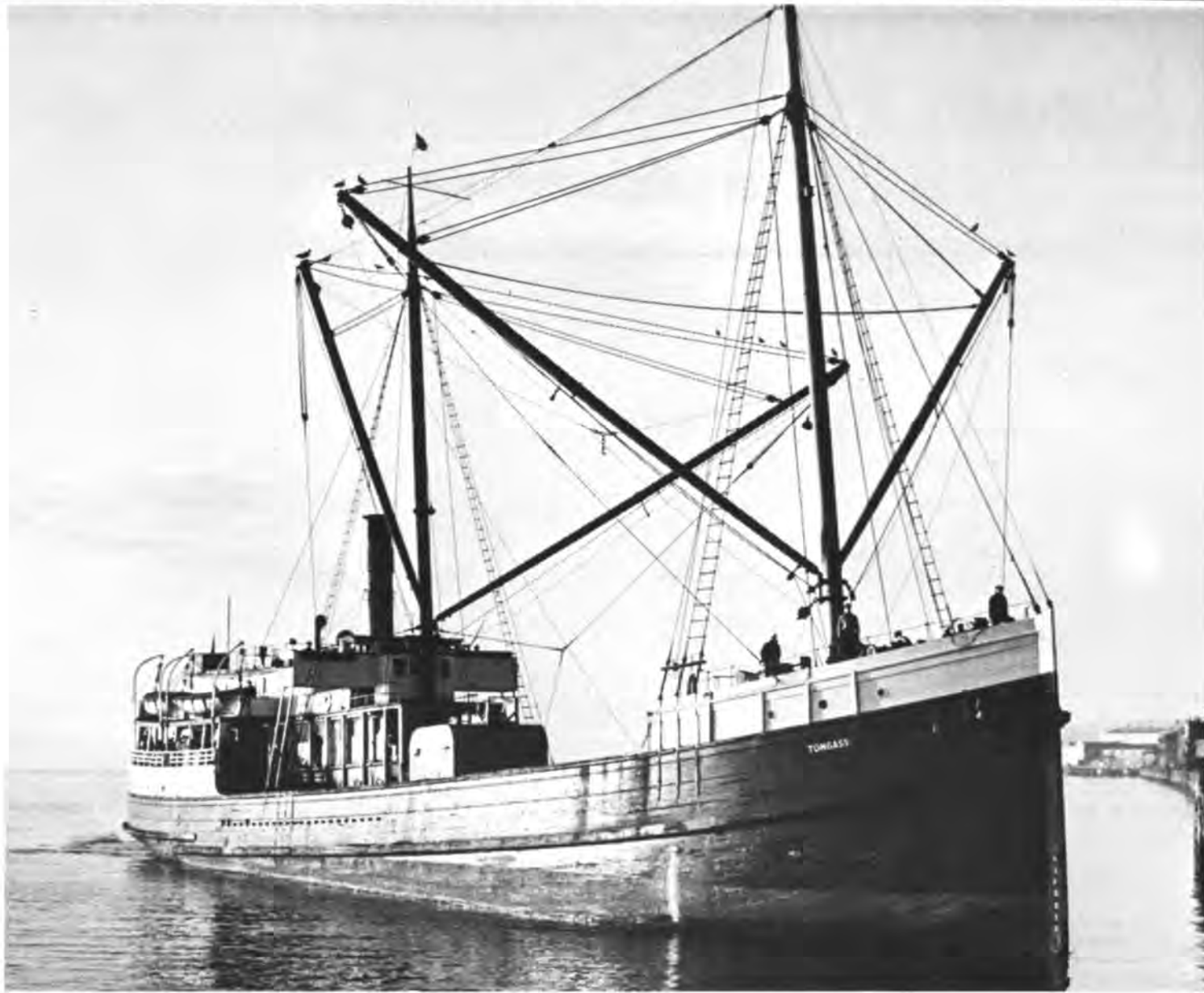
'Tis many a time that the poets did write
Of storm-beaten ships in a black, blowin' night.
'Tis hundreds of time, yes, thousands I'll say,
When writers wrote stuff about wind-driven spray.

But I know a night that no poem can reach;
A night when the best of 'em wished for the beach;
A wind that kept yard-arm and riggin' a-scream;
A sea that would wash decks regardless of beam.

A clang from the chadburn—the Chief gave her more,
But progress was slight in the storm's mighty roar.
The tarps were a-whippin' while all hands made fast—
I tell you this night made one think of his past.

The pilot house squeaked and it twisted and wrenched
When in plunged our Sparks—to the skin he was drenched.
His face was ghost-white—he was weak on his feet;
But he managed to whisper, "Sir, when do we eat?"





STEAM-SCHOONER WAPAMA - TONGASS - WAPAMA.

Built at St. Helens Oregon in 1915 she was christened "WAPAMA". She carried lumber from N.W. ports to Southern California for many years. Finally sold to ATC fleet and renamed "TONGASS". No longer needed, circa 1947, she was laid up at the St. Vincent de Paul Dock in Lake Union (Seattle) for 10 years until acquired by the S.F. Marine Museum. She was towed to S.F., restored and renamed WAPAMA-WMC. She was exhibited for many years by the S.F. Marine Museum until she finally needed so much repair work she was withdrawn and not sits forlorn atop a barge with her bottom rotted out. She is the last of these legendary steam schooners which used to chug north and south on the Pacific Coast from about 1910 to 1940. Many SOWP members entered the realm of wireless via the steam schooner route. Picture from collection - Joe D. Williamson

The Steam Schooners

The Passing of a Lady

By H. J. Scott

→ - → - →

"The Liner was a Lady and if a war should come,
The Man o' War's 'er 'usband, and 'ed bid 'er stay at home;
But, oh, the little cargo boats that fill with every tide!
'Ed 'ave to up and fight for them for they are England's pride.

Rudyard Kipling.

Just before the dawn of the 20th century, in about 1880, a new type of steamer was born to serve the lumber industry of the West Coast. It was a well-known ship to us here on the Pacific Coast and was known to maritime people as a steam schooner.

Prior to this, small two-masted schooners were used in the lumber trade up and down the coast plying between ports in Washington, Oregon and California. The reason for this was essentially because the lumber ports were in small bays at the mouths of rivers. These ports were associated with rock-bound, dangerous bars in which the channel was often not only shallow, but also frequently shifting in location, making transit across the bar very dangerous. These small "Mendocino" schooners served quite well except that they were subject to the vagaries of the wind, the weather and the tide. Many a ship was lost trying to cross a bar, especially if some change in the wind came along and left them becalmed in the middle of the crossing.

It was about 1880 that someone (and history forgot to tell us who) decided to take one of these little schooners and put a steam engine in her stern. Ergo, the steam schooner was born!

As their utility increased, so did the demand for them increase. Very soon they became the work horses of the lumber trade on the Pacific Coast. They could scoot in and out of lumber ports and deliver their cargo in good time.

The steam schooner was not what one would call beautiful or even graceful-looking. Her engines, stack, housing for the crew was aft, and if they carried a dozen or two passengers, housing was provided for them in the same area. The whole forward section below decks and high above decks was for lumber. By and large a steam schooner was perhaps 200 to 250 feet long, displaced about 800 to 950 tons, not large as ships go today. Except for those built in later years, they had wood hulls, were rather blunt in the bow and had two stubby masts.

In the parlance of the West Coast sailors, they were referred to as the "Scandinavian Navy" because practically every one was skippered by either a Norwegian, a Swede, a Dane or a Finn. They had such names as Ole Oleson, Jens Jensen, John Johnson, Sven Svenson and many similar names were common. Many of these skippers earned more colorful names, given them by their crews. You could hear about "Flat Foot" Hanson, "Midnight" Olsen, "Hurry up" Jackson, "Hoodlum Bob" Walvig, "Port Wine" Ellefsen and such.

These skippers and their rough, hell-raising crews, were all competent sailors who drank their whiskey straight, often with a beer chaser, and could carry it as though it was so much water. The skippers weren't much for formal navigation but they knew the coast like the palms of their hands.

There is a story of those days about a steam schooner skipper who was explaining navigation to a young sailor aboard his ship. As the story goes, he said to the lad, "I takes me a lonnitude, unt from it I find my ladditude. Unt if it don'e come out where I tink it should, vy de hell mit it unt I takes me anodder reading."

Today the WAPAMA (WMC), the last of the steam schooners existent, is sitting on a barge in the Oakland Estuary. Were she not on the barge, she would sink to the bottom of the estuary since her keel is broken and her bottom has completely rotted away. She was built in St. Helens, Oregon in 1915, was of 951 tons gross and had a cargo capacity of 1,050,000 board feet of lumber

(Continued on Page 32)

The Dawn of Trans-Pacific Wireless Communication

By Alexander Seidl

EDITOR'S NOTE

Alexander Seidl, Senior SGP-792, joined the Society over 12 years ago under the sponsorship of John S. Philbrick who had been the EIC at Bolinas High Power back circa 1920. "Phil" became a Silent Key Sept. 9 1975 at the age of 93.

"Si" has had quite a unique experience of achievement in the Communication field, especially the building and commissioning of the circuits which linked the United States and Japan via the Pacific Islands. "Si's" first interest in R/T was with amateur station "6QI" which went on the air in 1913. First operator's license was dated March 5 1914 which he used on his first assignment on the SS KLAMATH/MSX that year.

"SI" spent much time on West Coast ships as operator during his early years using the time and money to complete his education in Electrical Engineering. First HIGH POWER experience was at KAHUKU, OAHU at station KIE with the 300 KW Rotary Spark in operation circa 1919. After serving in the Navy and with an assignment in Alaska he returned to RCA Communications with assignment at Bolinas/KET. Later he was assigned to KAHUKU/KIE spending much time with experimental station K6XO PTP R/T circuits around the Pacific Basin.

A short time ago, Society Historian Thorn Mayes - a Director of the Foothills Electronic Museum at Los Altos suggested that a "Pictorial Display" of the Early Days of Communications across the Pacific would be of great interest to the public and inquired if "Si" would work up such an exhibit, under the sponsorship of the Society of Wireless Pioneers, Inc., which he accepted.

It might be mentioned that "Si" has already authored a very comprehensive story about the early days of Communications in the Pacific which is scheduled for publication in SPARKS IV later this year. A few of the pictures and drawings have been used from this article which will appear later in SPARKS IV.

"Si" is a Registered Professional Electrical Engineer; California Registration Certificate No. 373. He spent about 28 years in this profession with Pacific Gas & Electric Co. until retirement in 1960. He has spent much time in the last few years researching the history of early day wireless in the Pacific.



ALEXANDER SEIDL

On June 26, 1906, cable communication between the U.S.A. and Japan was established by means of a single conductor cable laid from San Francisco by way of Hawaii and the mid-Pacific islands of Midway, Wake and Guam, thence via the Bonin Islands to Japan. The circuit length of this cable was 7,713 miles and it remained in operation until September 5, 1951 when the service was discontinued and the cable salvaged.

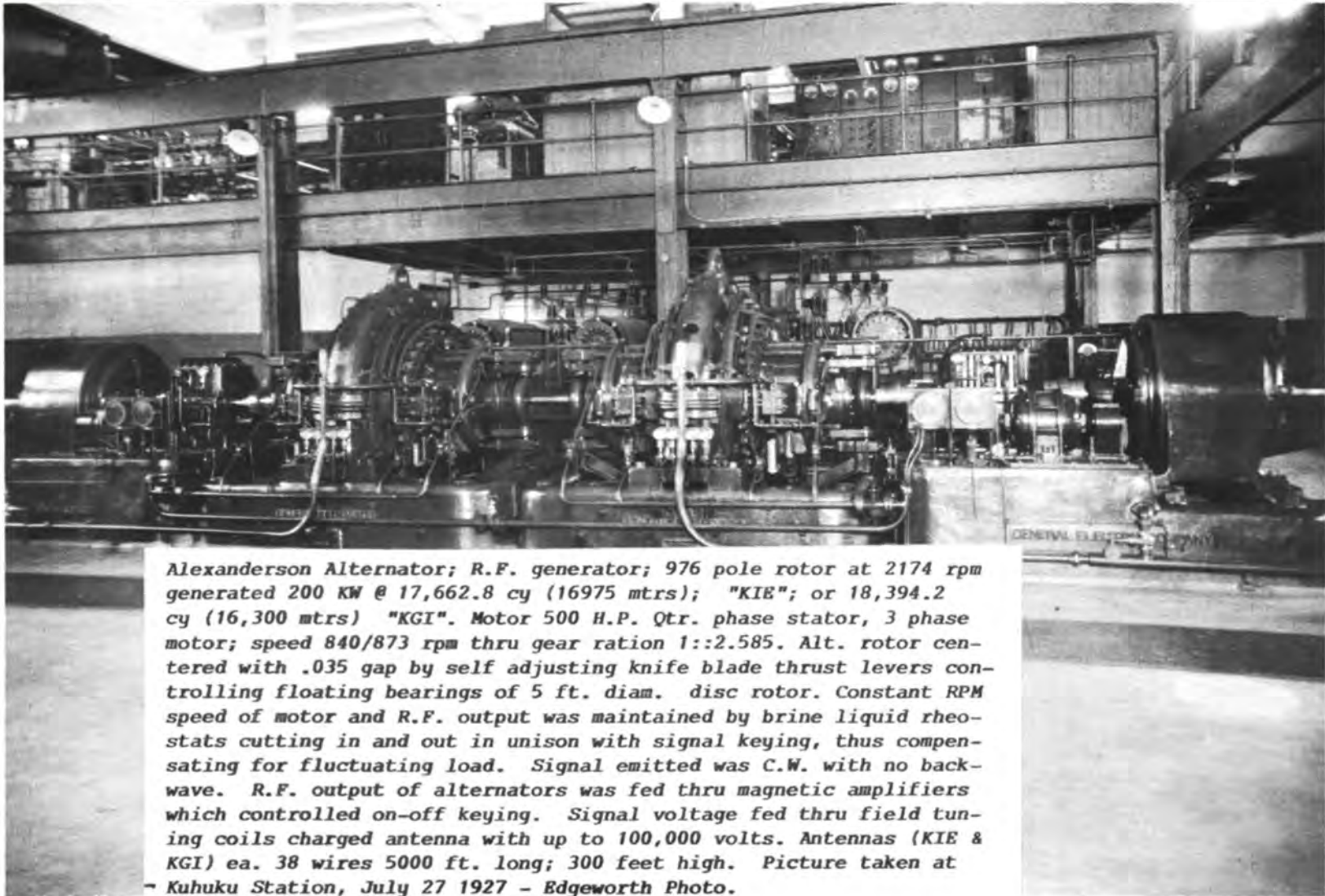
The construction of stations in California and Hawaii for a wireless telegraph circuit to compete with the cable was started by the Marconi Wireless Telegraph Company of America in 1913 with Hawaii being the relay point between the two countries. The stations in Japan were operated by the Japanese Ministry of Communications and commercial operation inaugurated on November 16, 1916.

The equipment used on the circuit consisted of low frequency damped wave spark transmitters and crystal detector receivers. The movement of traffic was greatly hampered by static; thus began the dawn of trans-Pacific wireless communication.

(Continued on Page 23)



Aerial view - Kahuku, Hawaii Station - Circa 1950



Alexanderson Alternator; R.F. generator; 976 pole rotor at 2174 rpm generated 200 KW @ 17,662.8 cy (16975 mtrs); "KIE"; or 18,394.2 cy (16,300 mtrs) "KGI". Motor 500 H.P. Qtr. phase stator, 3 phase motor; speed 840/873 rpm thru gear ration 1::2.585. Alt. rotor centered with .035 gap by self adjusting knife blade thrust levers controlling floating bearings of 5 ft. diam. disc rotor. Constant RPM speed of motor and R.F. output was maintained by brine liquid rheostats cutting in and out in unison with signal keying, thus compensating for fluctuating load. Signal emitted was C.W. with no back-wave. R.F. output of alternators was fed thru magnetic amplifiers which controlled on-off keying. Signal voltage fed thru field tuning coils charged antenna with up to 100,000 volts. Antennas (KIE & KGI) ea. 38 wires 5000 ft. long; 300 feet high. Picture taken at Kahuku Station, July 27 1927 - Edgeworth Photo.

(Continued from Page 22)

Changes were to follow when in 1919 the Marconi Company became a part of the then newly-formed Radio Corporation of America. In 1921 the circuit was converted to use very low frequency, say 13,000 to 16,000 meters, undamped wave transmitters powered by 200 KW radio frequency alternators of the Alexanderson type. In concert with this change, receivers using vacuum tubes for detection and amplification were developed and when used with the so-called Beverage wave antenna, static no longer was a problem in the movement of traffic. By 1930, the alternators were replaced by 20/40 KW high frequency, say 20 to 80 meters, tube transmitters, which, when used with high gain directive antennas, made it possible to operate a direct circuit between California and Japan.

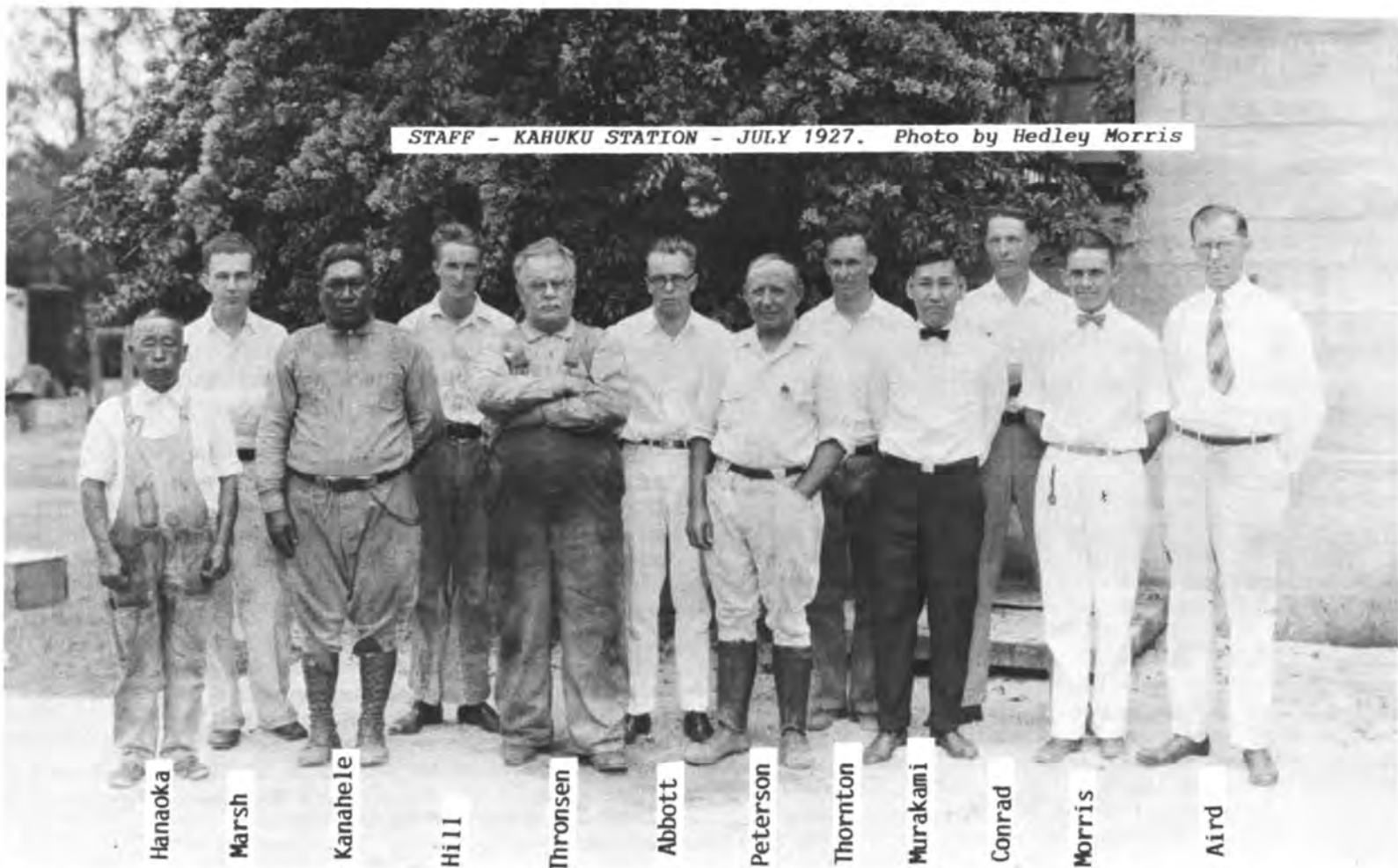
In 1960 the high frequency mode to Japan was supplanted by the present-day multi-channel telecommunication submarine cables which extend from California to countries in Asia and to Australia. Satellite circuits are also available.

In order that a transmitting station using a spark gap transmitter would not cause interference at its related receiving station, it was necessary that the stations be separated from each other by, say, 30 miles or more in order to permit duplex operation.

Call	Location	Wavelength, In Meters	Input Power
1. KET	Bolinas, CA.*	6,700	300 KW
2.	Koko Head, Oahu	Receiving	
3. KIE	Kahuku, Oahu*	9,500	300 KW
4.	Tomioka, Japan	Receiving	
5. JJC	Funabashi, Japan**	7,000	200 KW
6. KGI	Kahuku, Oahu*	9,000	300 KW
7.	Marshalls, CA	Receiving	

* Marconi system using synchronous type rotary spark gap.
 ** Telefunken system using 500 cycle quenched spark gap.

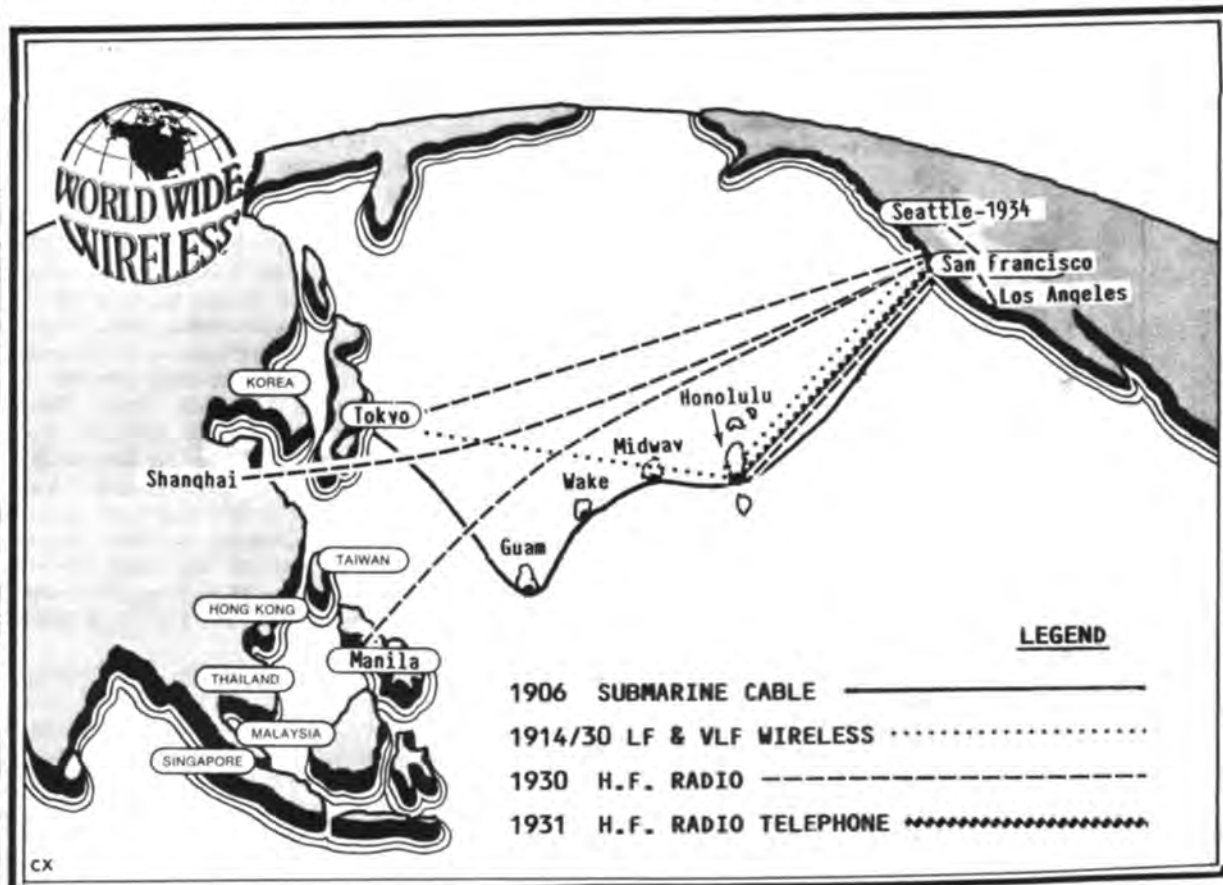
(Continued on Page 24)



STAFF - KAHUKU STATION - JULY 1927. Photo by Hedley Morris

Hanaoka
 Marsh
 Kanahele
 Hill
 Thronsen
 Abbott
 Peterson
 Thornton
 Murakami
 Conrad
 Morris
 Aird

Pathfinder Circuits across the Pacific



Because of the isolated locations of the stations in California and Hawaii, it was necessary to provide board and lodging for the staff of wireless and landline operators at the receiving stations at Marshalls and Koko Head and for the staff of engineers at Bolinas and Kahuku. Bolinas was the only station served by a public utility and diesel-powered generator/storage battery plants were provided at Marshalls and Koko Head and a 1500 hp oil-fired steam plant at Kahuku. It has been said that the Marconi Company invested approximately \$2,000,000 in its stations in Hawaii.

This exhibit has been presented to the Foothills Electronic Museum by the Society of Wireless Pioneers, Inc., founded by William A. Breniman on May 4th, 1968. It is a member-sponsored organization of persons who have been professionally associated with wireless telegraphy on ships and at land stations since the days of Marconi. The historic data shown in the exhibit has been compiled from the personal records of Alexander Seidl who was an engineer at the Marconi station at Kahuku, Oahu, T.H. in 1919-1920.



LEWIS M. CLEMENT

Sailing day for "Lew" Clements - Jan. 16 1916 after spending nearly two years at Kahuku as Shift Engineer under N.S. Slaughter, EIC. He was there during "test and tune" period and now leaving Honolulu aboard the S.S. LURLINE-WML reassigned to Bolinas, Calif where he remained until May 1916.

"Lew" was SOWP Member 153-SGP(Senior). He joined the Society July 1 1968 and for several years was one of our early Directors. During this period he furnished us with a wealth of historical information and data which which we have used for reference and portions of which will be published in the future.

"Lew" became a Silent Key Aug. 22 1979. He secured his "COP" (Certificate of Proficiency) from the Navy Yard at Bremerton in 1911.. He was to sail aboard the SS. Spokane-GE/WGE the same year. The Spokane provided his first thrill when it hit a rock negotiating Seymour Narrows enroute Alaska. "Lew" sent his first SOS. Early shipboard experience enabled him to earn money to continue his studies in Electrical Engineering in 1914, after receiving his degree from the University of California, he joined the staff at Kahuku, Hawaii.

1919 - STAFF CHRISTMAS DINNER - KAHUKU

Left foreground - Alexander Seidl. Across from him in right foreground is John S. Philbrick (deceased Sept. 9 1975) who was Enineer-in-Charge at Kahuku in 1919. "Phil" who was SOWP Member S/SGP 286 first assignment was as operator on the SS Persia/MBS in 1914.. He left Kahuku in 1920 to become EIC at Bolinas, CA. In 1926 he became District Operating Engineer and in 1943 became District Engineer for the Hawaiian Islands. He returned to Bolinas in 1945 and retired in 1946.

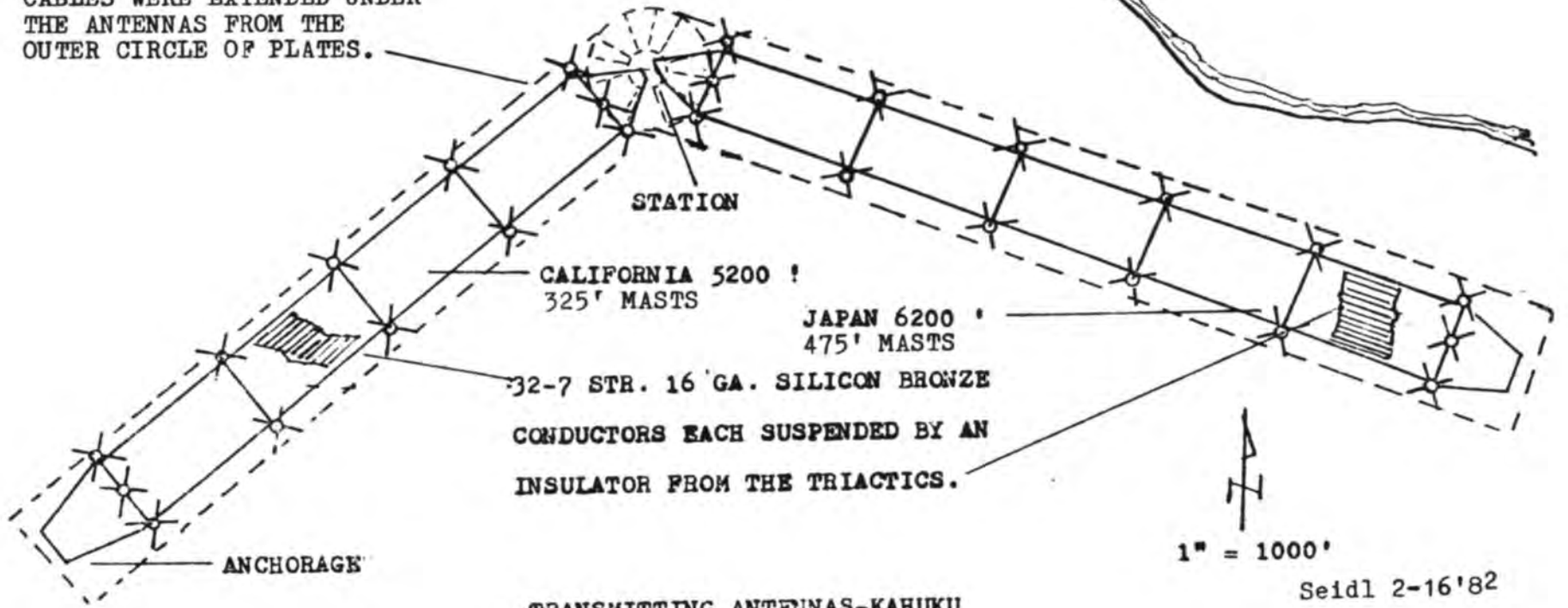
Hedley B. Morris - 195-SGP (Deceased June 30 1977) is the second figure on the right. Others in the photograph and lady are not identified. Morris was at Bolinas for a short time in 1920, then became Assistant EIC at Kahuku intil 1927. After leaving Kahuku he had tours of duty at other RCA point to point station on the Atlantic Coast; He was EIC at Manila with RCA the Philippines; in Cuba as VP of RCA's subsidiary (until Castro came into power. His last assignment prior retirement was in Hawaii.



The CALIFORNIA ANTENNA was 600 feet in width with an over-all length of 5,200 feet and supported on twelve 325 Ft. quayed cylindrical steel masts.

THE JAPAN ANTENNA was 600 feet in width with an overall length of 6,200 ft and supported on fourteen 475 ft. masts. It is said that this antenna was the largest of this type ever constructed.

STATION GROUNDING CONSISTED OF BURIED ZINC PLATES BOLTED TOGETHER TO FORM 2 CIRCLES AROUND THE STATION. THE OUTER CIRCLE HAD A RADIUS OF 400'. NUMEROUS BURIED COPPER CABLES WERE EXTENDED UNDER THE ANTENNAS FROM THE OUTER CIRCLE OF PLATES.



TRANSMITTING ANTENNAS-KAHUKU



KAHUKU - HAWAII - 1919

This panoramic view of the Kahuku Station and most of the towers and grid system was taken by Alexander Seidl from the 270 foot level of Japan Mast N-3. A plan map of the antennas is shown in the drawing at bottom of page illustrating the directionally oriented flat tops which consisted of 32 wires of 7 strand No. 16 gauge silicon bronze wire being suspended by an insulator attached to the triactic.



JAPAN ANTENNA at Koko Head - 1919.

This antenna directionally oriented, was 4,800 feet in length with its 2 conductors supported on two 425 foot masts for the first 1400 feet, then rose in a single span up the slope of the extinct Koko Head Volcano crater to a 150 foot self supporting tower on the edge of the crater; thence to an anchorage within the crater. The elevation of the crater is 1,194 feet above sea level.

Author W.H. Eccles in his "Wireless Telegraphy and Telephony" published in Great Britain - 1918 commented "...the lava formation is so good an insulator, because of rapid drainage, that the antenna behaves as if supported on a cone of glass 1,200 feet high". It would appear that the Koko Head antenna characteristics were perhaps better than those of the Eiffel Tower with its height of 984 feet.



KAICHIRO YONEMURA

Superintendent of the Tomioka Station who sent the first news of the disaster which hit Japan on Sept. 1 1923 - the devastating earthquake which leveled much of Tokyo, Yokohama and the Kanto area.

The underseas cables to Japan were put out of service by the earthquake, and thus Japan was to remain completely isolated from the world for many hours. The first news to the world of the disaster was a 20 word radiogram to RCA in San Francisco. It was received at 6:10 AM Saturday morning, Sept. 1st; this being Sept. 2nd in Japan. It read as follows:

"Conflagration subsequent to severe earthquake at Yokohama at noon today. Whole city practically ablaze with numerous casualties. All traffic stopped."

For the next seven days only meager details as to the conditions in Japan were received by RCA in San Francisco who kept the world informed through the press. Thereafter press service in Japan was restored which set in motion expressions of sympathy and offers to help from all parts of the world.

As with all recorded events of disaster in which wireless telegraphy played its part in bringing succor to those in distress; there always has been a man at a telegraph key who in times past has been referred to as a "brass pounder" and it was his lot to pass the world along whether it be an SOS, or otherwise.

Supt. Yonemura became the legendary figure who sent an SOS on the behalf of an entire nation of people.

NSS - Still Going Strong on VLF

By ROBERT J. GLEASON



NAA—ARLINGTON, VIRGINIA (1917)

Although not as old as NAA, NSS is still in operation on VLF. In fact, it is the oldest continuously operating very low frequency station in the entire world!

NSS is located on the small peninsula known as Greenbury Point on the northeastern shore of the Severn River, directly across from the United States Naval Academy at Annapolis, Maryland.

The ground on which it is located was part of the estate known as "Hammond's Inheritance of 1737" and the 500 acres were purchased by the U.S. Navy in 1910 for a dairy farm for the Academy. Price, \$49,500! From 1911 to 1917, part of this site was also used for the first Naval Air Station.

It was not until World War I that NSS came into being. Early in that war it was recognized that additional dependable radio communication to Europe was essential so new stations were planned for the U.S. and France. The site selected for the east coast high power VLF transmitter was Greenbury Point. Under wartime pressure, six 600-foot self-supporting towers were fabricated and erected and the ground system consisting of 35 miles of copper wire was installed. The huge flat top aerial was hauled up between the towers with a center down-lead. Transmitter, power plant and quarters buildings were completed, a dock was built for coal delivery to the power plant, etc. -- all in less than 18 months. The station was commissioned August 6, 1918.

Two transmitters had been installed to insure continuous operation. They were 350 kilowatt Fessenden arc transmitters designed and built for the Bureau of Engineering, Navy Department, by the Federal Telegraph Company.

The receiving facilities and control point were located in the Navy Annex building near the Potomac River in Washington, D.C., about 30 miles away.

The two arc transmitters continued in service until 1931 when one of them was removed and replaced by a General Electric Company Type TBJ 500 kilowatt tube transmitter. Later, LF transmitters were added, also many high power HF transmitters, with additional buildings and antennas scattered over the site and the adjacent area which had become the Naval Academy's golf course. But the vital VLF operation never stopped and many operators will remember well the time ticks, weather bulletins, hurricane warnings and press sent from NSS.

In 1969, extensive modification and improvement of the VLF antenna system was begun. A new 1200-foot guyed center tower was erected and surrounded with nine 600-foot towers (three of which are identical to those erected in 1917). The modified "Goliath" antenna consists of the 1200 tower and the "top hat" assembly supported by the 600-foot towers, covering about 200 acres. A single ceramic insulator supports the entire system which weighs "about as much as a destroyer." The output from the transmitter coupling coils is fed to the center tower at the 300, 600 and 900-foot levels and these "lead-ins" are a part of the complete antenna system.

To power the new VLF antenna a 1000 kilowatt AN/FRT87 transmitter was installed in the original transmitter building. This huge transmitter purchased from the Continental Electronics Manufacturing Company occupies the entire building, which is 75 feet wide and 145 feet long, with the output fed directly into the coupling coils in the adjoining "helix house" which is 75 feet square and 65 feet high. These huge variometers (there are two of them in series) take up most of the space in this large building, as each is 35 feet high. They are wound with 4.4 inch diameter Litz wire and carry about 1300 Amperes. (Yes, four and four tenths inch Litz wire!)

The AN/FRT87 transmitter uses four 250,000 watt tubes in push pull in the final amplifier. Additional tubes are alongside each pair as "hot spares" which can be very quickly switched in if needed. These tubes are manufactured by Eimac and presently cost \$11,000 each. The 17,500 volt D.C. plate supply is provided by solid state rectifiers. The tubes are kept at proper operating temperature by circulating and cooling 700 gallons of distilled water per minute.

Although HF was phased out at Annapolis a few years ago, the VLF and LF operation has continued uninterrupted. In addition to the VLF, three powerful transmitters continue on LF. For LF, an 850-foot vertical radiator and two "flat top" antennas between three 300-foot towers are used. A fourth 300-foot tower is used for microwave systems connecting the facility with various locations.

Two auxiliary power plants each with 200 kilowatt alternators insure constant power supply. The auxiliary plant's big diesel engines are manufactured by General Motors and are the same as used on their railroad locomotives.

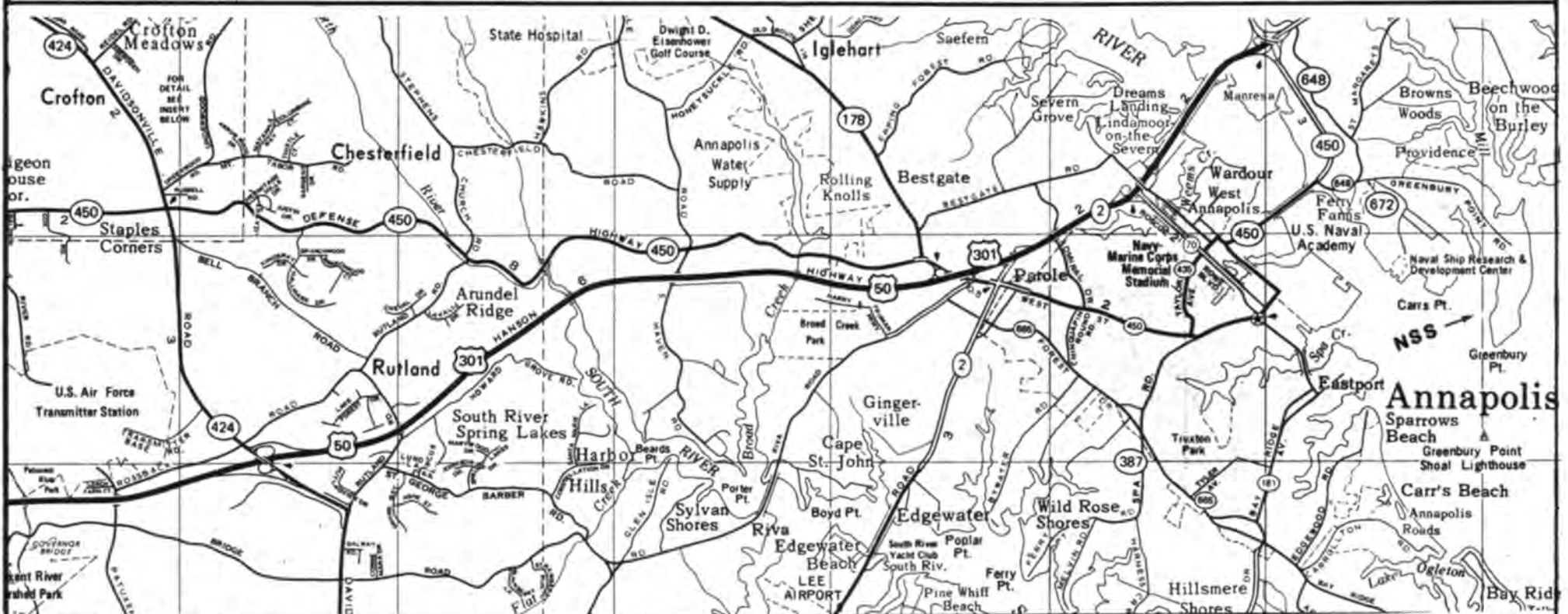
Today the mission of the NSS Navy Radio Transmitting Facility is to provide fast, reliable and secure communication for our submarine units in the Atlantic and the Mediterranean.

Specially designed sophisticated multiplex transmission equipment is used and all traffic is computer encrypted. Although NSS is going stronger than ever, with a terribly vital mission in this nuclear powered world, sad to say, the call letters NSS are now never transmitted.

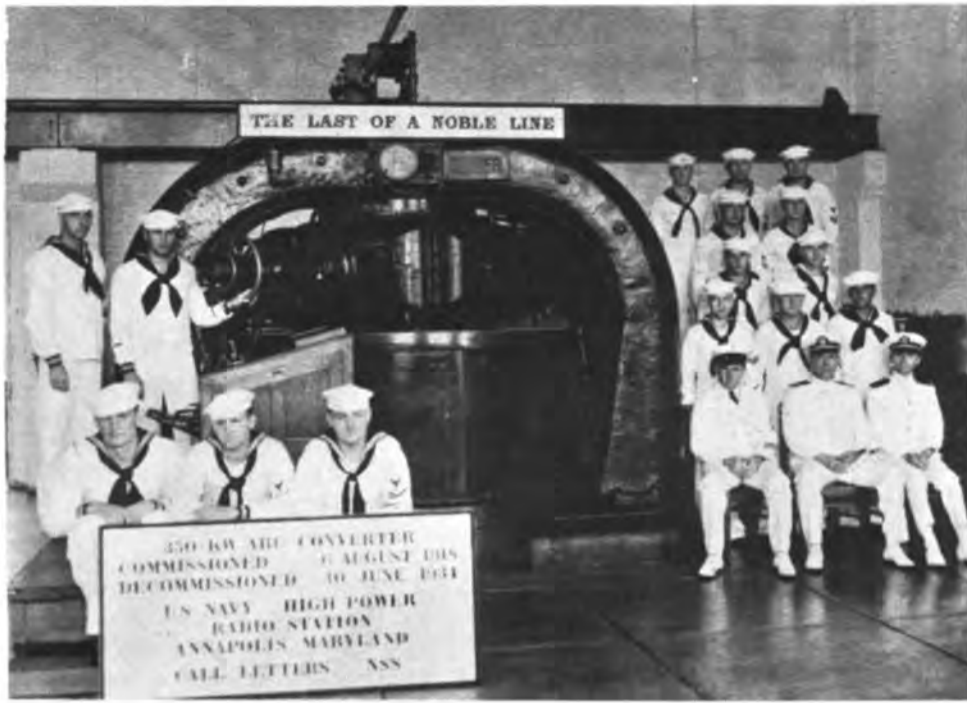
The Naval Radio Transmitting Facility is presently staffed by about 70 military and civilian personnel under command of Lt. Commander Samuel G. Curry.

Danny G. Cartwright, Electronics Technician Senior Chief Petty Officer is the maintenance Chief in charge of the VLF installation and the man responsible for keeping it on the air. I am deeply indebted to him for digging into the historical files, procuring and taking photographs and "showing me the works."

As an old radioman and engineer, I am proud to see a great radio station continuing to serve our country efficiently and effectively.



NSS . . . OLD CALL STILL MAKING HISTORY



THE LAST OF A NOBLE LINE

The operators and staff of Station "NSS" as the 350 KW Arc Converter was decommissioned June 30 1934. We have been unable to identify those in the picture. Perhaps some of our members were among this group and can help us identify the 18 men pictured.



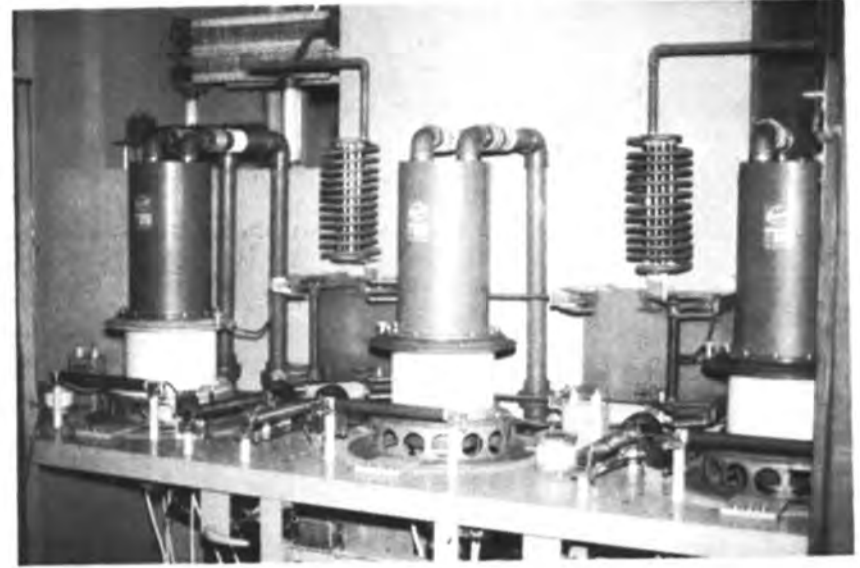
1938 - STAFF - NSS

High Power Radio Station - Annapolis, Maryland. Picture of Officers and men placing station in service at 1100 on Oct. 10 1938. Lieut H.A. Tellman, U.S.N. OIC. We are sure some of our members appear in the above picture. We will run a profile in a coming issue if we can obtain necessary identifications of those in picture. A "TBJ" transmitter was placed in service this date.



1930 - EARLY RECEIVING POSITIONS

1930 - EARLY RECEIVING POSITIONS - NSS Model RAB-1 Dual-position installed at RADIO CENTRAL, in Washington D.C. (Control). Radio Receiving Equipment was fabricated by RCA Victor Co., Inc. Receiver output, Channels, Jacks, etc. are located at right front of desk.



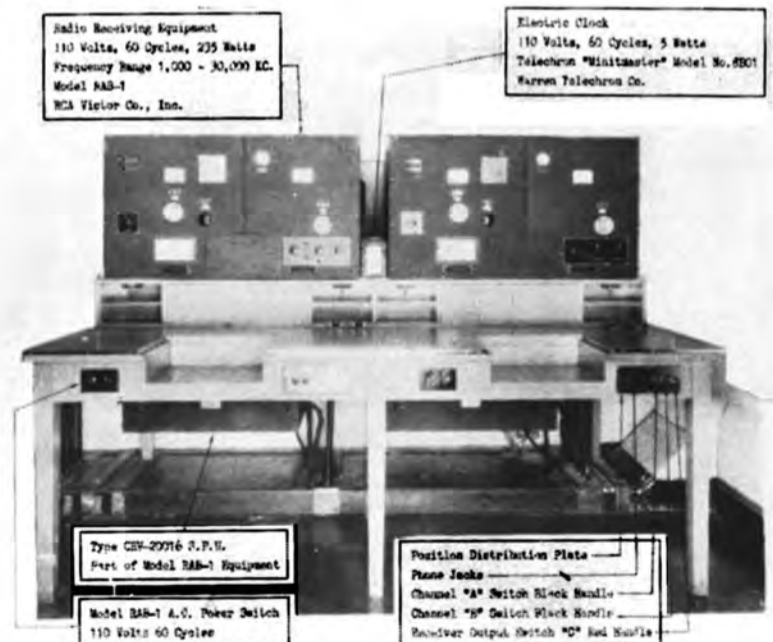
TRANSMITTER - NSS

Front of PA-1 showing 3-PA Tubes. Two are used at one time with the third as a 'hot' spare. Power out of 1-PA is 500,000 watts - 250,000 watts per tube. There are two PA's used in push-pull to give a total of 1 million watts.



TUNING SYSTEM.

No. 2 Antenna tuning Helicoil 35 Feet high. Also shows roof bushing feeding to antenna. This Helicoil is in series with No.1 Helicoil.



Radio Receiving Equipment
110 Volts, 60 Cycles, 235 Watts
Frequency Range 1,000 - 30,000 KC.
Model RAB-1
RCA Victor Co., Inc.

Electric Clock
110 Volts, 60 Cycles, 5 Watts
Telechron "Mintmaster" Model No. 8501
Warren Telechron Co.

Type CEN-20716 J.P.U.
Part of Model RAB-1 Equipment
Model RAB-1 A.C. Power Switch
110 Volts 60 Cycles

Position Distribution Plate
Phone Jacks
Channel "A" Switch Black Handle
Channel "B" Switch Black Handle
Receiver Output Switch "D" Red Handle

RADIO CENTRAL, NAVY DEPARTMENT, WASHINGTON, D.C.
Two Position Installation of Model RAB-1 Equipment
(Front View - Typewriters and Hand Telephones Type 49016 Enclosed)

Thanks to the Naval Photographic Center, Naval District, Washington DC for pictures used and special mention to Cmdr. Curry, Lt. John Fisher and others who furnished pictures of NSS to Robert J. "Bob" Gleason for use in his article.

Drawing of NAA/NSS towers courtesy of Gardner Smith W9ALZ (Used on his QSL-Cards.)

TITANIC STORY - D'ONOFRIO

(Continued from Page 1)

She was about 95 miles south off the Grand Banks of Newfoundland when she hit the iceberg at 11:40 that fateful night, with the last sea temperature reading of 31 degrees. With her bow compartment already flooded, she was going down by the head, listing now about 5 degrees to starboard. Under her lay 2 1/2 miles of ocean.

Most of her passengers had already retired for the night or were preparing to do so. Some were asking, "What was that bumping sound?"

That bumping sound was the iceberg making a 300-foot gash below the waterline, from the bow along the starboard side, the rupture flooding the forward five watertight compartments. She could stay afloat with four compartments flooded, but not five. And as one compartment filled, the water would then spill over into the next one aft. A bosun's whistle was piping "All hands on deck" to prepare the lifeboats for abandoning ship.

One wonders whether even Captain Smith himself foresaw the full impact of the disaster and the effect it would have on maritime history.

The radio room, or Marconi office as it was called, was located on the forward port side of the boat deck, just a stroll behind the wheelhouse, chartroom and officers' quarters. One section of the white room was for the radio gear and another, separated by a green curtain, was for their sleeping quarters.

The business end of MGY, her call letters, was a rotary disk discharger, fed by a 5 KW motor-generator, which was powered by the ship's 110-VDC system. The receiver was a magnetic detector, activated by a clockwork mechanism, with a handcrank, which was connected to the Marconi tuner circuits. It was a brute that did the job. And with a band coverage between 300 and 2500 meters, MGY under good conditions could communicate fairly well up to 2000 miles. During daylight, 150 miles was typical.

Her Senior Wireless Operator, Jack Phillips, was a serious, likeable young man who had celebrated his 25th birthday yesterday. Wireless was his world. Phillips had been graduated from the Marconi school at the top of his class, worked as a postal telegrapher, and then sailed about for several years aboard five other ships, before being appointed to serve aboard the Titanic.

Equally serious and friendly was their Junior Wireless Operator, Harold Bride; 23, also a graduate of the Marconi school. After spending some time as a postal telegrapher, he took to the sea, having served on four other ships before his appointment to the Titanic.

In those days, in contrast with today, wireless operators were not considered nor treated as officers, but as employees, and in this instance, of Marconi Marine. They wore the uniform of Marconi Marine, not that of the steamship line. In fact, they had little to do with the crew, except for those brief exchanges pertaining to their wireless duties. And fraternizing with the passengers was out of the question.



The "S-O-S"

Without a doubt, being able to hit it off with your co-worker as a wireless operator was important, for there wasn't anyone else who truly cared. Fourteen hour watches were common, for which one could expect about thirty dollars a month -- not very glamorous work.

Senior operator Jack Phillips was at the straight key that evening, working an 8 P.M. to 2 A.M. watch, trying to clear an ever-growing pile of official traffic with Cape Race, Newfoundland. Earlier he and Junior Operator Harold Bride had to repair a defective transformer, the time lost just adding to their heavy workload of maiden traffic. Marconigrams from the passengers, which looked like the Who's Who of the social register, added heavily to the pile before him.

Then, too, because of poor atmospheric conditions, the Titanic had "lost" Cape Race (MCE) and had to wait until the skip improved; more time wasted as the traffic continued to pile up. Frustrating, patience-trying, hard work, amid a cacophony of static and QRM from other stations that shook and pierced one's eardrums like a searing discharge of lightning.

Several iceberg reports had already been copied and sent to the bridge. Still the rolled-message container from the purser's office shot down the pneumatic tube to the Marconi office with more traffic. Earlier Phillips had copied another iceberg report, this from the Mesaba, about pack ice and icebergs in the 1st 41 to 42° N, long 49 to 50° 30' W area.

(Continued on Page 29)

DID THIS ICEBERG SINK THE GREAT NEW LINER TITANIC ? SOME CLAIM IT DID.



This iceberg is believed to be the one that sank the Titanic on April 14-15 1912. The photo was taken from the deck of the cable ship MacKay-Bennett, one of the first ships to reach the scene of the disaster. USCG Picture - From "Proceedings of the Marine Safety Council. April 1976.

TITANIC STORY - D'ONOFRIO

(Continued from Page 28)

The Mesaba received only a perfunctory R TNX for its effort, not the usual kind that would be sent by the master of the ship with messages of this important nature. The Mesaba message never reached the bridge at all. Phillips plopped a paperweight on it, meaning to take care of it right after he'd taken care of Cape Race. The pile of traffic was dwindling as Phillips continued working at the key, the Mesaba message at his side.

Phillips and Bride were exhausted from the unusually heavy workload, so much so that when the Californian had interrupted Phillips while working Cape Race, to give him another iceberg report, Phillips, his eardrums nearly blasted open, angrily fired back with the equivalent of "Shut up, shut up, I am busy working Cape Race." Phillips apologized to the operator of Cape Race, MCE, and asked for a "please repeat" because of QRM.

The Californian had only one wireless operator, Cyril Evans, who thought the Titanic's rebuff uncalled for and heavy-handed. Evans, of course, should have waited for the proper time to contact the Titanic, and not have burst in while the Titanic and Cape Race were in communication. Evans had had a tough watch, too, and coupled with the Titanic's rough reply to him, he decided to shut down and call it a night. He tumbled into his bunk, happy the watch was over (with the last iceberg report to the Titanic unsent). The Californian, because of the pack ice in the area, lay dead in the water, while the Titanic was within visual line of sight and cutting the water at 22 1/2 knots.

It was minutes before midnight when Harold Bride, though he wasn't obligated to relieve Phillips until 2 A.M., arose from his slumber behind the green curtain and decided to pitch in to clear away the load of traffic to Cape Race. From his bunk he called to Phillips, "How's the Cape Race traffic doing?" Phillips turned to his friend, who was still in his pajamas, and replied that he was clearing away most of the traffic and that he thought something was wrong with the ship, a "bump." He thought they'd be returning to Belfast if it was important.

Although five iceberg reports had been delivered to the bridge that day, that last report from the Mesaba still lay undisturbed under the paperweight. And the Californian's iceberg report, of course, never was sent.

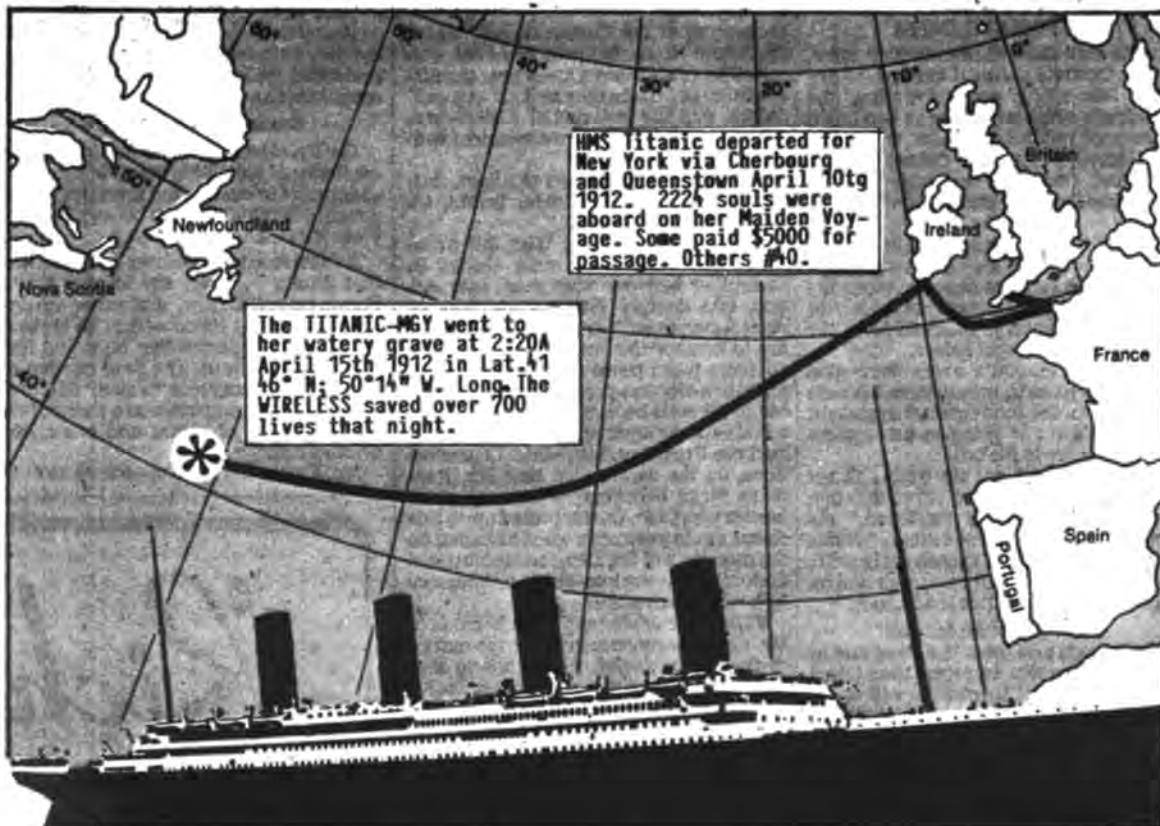
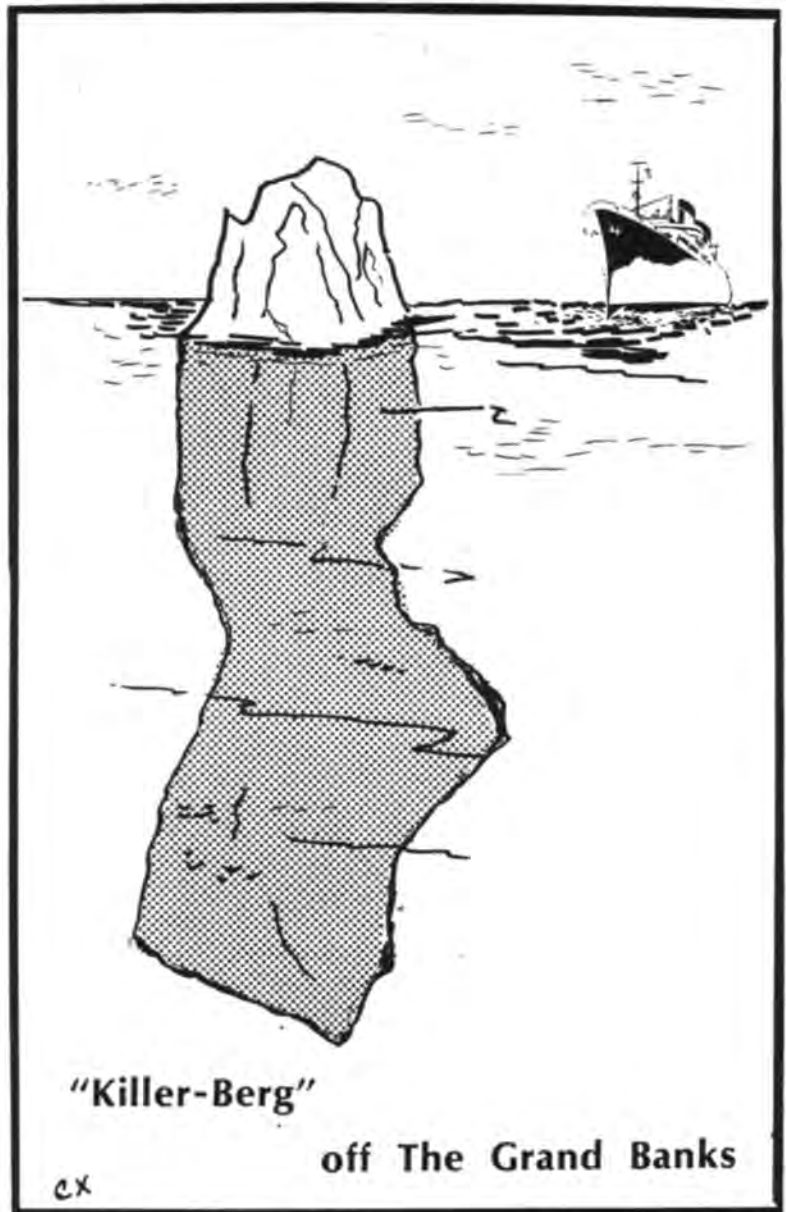
They were chatting about what could have happened to the ship when the door opened and Captain Smith himself appeared: "We've struck an iceberg, lads. Stand by to send an emergency call, but not before I say so."

Stunned, they looked at each other at the news, as he left the room. "An iceberg," said Phillips, unbelieving; "Hardly more than a bump."

Captain Smith soon reappeared, and scribbled the Titanic's location on a slip of paper, handing it to Phillips. "Send the call for assistance right away," and quickly left.

Phillips promptly clamped on the headphones and started sending, looking at the slip of paper that the Captain had given him. He repeated the message six times, followed by MGY, the Titanic's call.

(Continued on Page 30)



"ICE PATROL"

It is estimated that 7,500 sizable bergs break off from glaciers on the west coast of Greenland each year. An average of 428 will drift south of Latitude 48° N. (Newfoundland) and approximately 35 will drift to latitude 43° North.

The 1972 Ice Patrol Season was one of the longest on record according to USCG. It was the 5th time since 1900 that more than 1000 icebergs entered the Atlantic Ocean south of the 48th parallel.

Life pattern of the average berg is nearly 3 years and a 'drift' of 1800 miles the norm. However, many do not follow average drift patterns and it is difficult to chart their behaviors. The southern-most icebergs observed were in the same parallel as Philadelphia or 40° 02" North and 36° 59" West longitude. To the East they were observed reaching 47° 01" N and 36° 59" W - almost 700 miles east of Newfoundland.

SINKING OF HMS TITANIC - MGY APRIL 15, 1912 MADE "WIRELESS" THE MAGIC WORD

TITANIC-(D'ONOFRIO)

(Continued from Page 29)

Approximately 100 miles away, the Birma, as well as others in the area, were copying "CQD -- have struck iceberg -- sinking fast -- come to our assistance -- position lat 41.46 N lon 50.14 W MGY --"

Meanwhile the Californian lay dead in the water about 20 miles away from the Titanic, now slipping deeper at the head as her forward compartments filled.

Cyril Evans, wireless operator on the Californian was dozing off when a third officer friend, Charles Groves, dropped by to chat and perhaps listen in. He was able to copy code provided it was not too fast. "Who's in the area?" asked Groves.

"The Titanic," and slipped off to sleep. Groves picked up the headphones but didn't hear anything. He did know the technical side: that the set used a magnetic detector which needed to be cranked up to activate the clockwork mechanism. Seeing that Evans was sound asleep, he put the headphones on the table and quietly left the room.

At about this time, officers on the Californian had observed sighting flares on the horizon and reported this occurrence to their commanding officer, Captain Stanley Lord, who had retired for the night. "What color were the flares?" he asked. When told they were white, he replied to try to signal them by Morse lamp and to keep him informed. He did not ask that the wireless operator be roused to determine what might be happening on the horizon. The incident was not even entered in the ship's log.

Captain Smith of the Titanic, fearing the worst for his passengers and crew, burst into the wireless room: "What are you sending?" When told that they were sending the standard CQD call of distress, Junior Operator Bride suggested that maybe they should use the newly adopted SOS -- a combination that even the most rank beginner would have little trouble in recognizing.

"Use it," said the Captain, and left.

"Send that SOS," kidded Bride, "It may be your last chance to use it." (This was the first use of the SOS distress signal used at sea.)

Jack Phillips pounded brass "MGY CQD CQD SOS SOS CQD SOS -- come at once -- we have struck a berg CQD SOS MGY." A Japanese ship reported hearing this message repeated 15 to 20 times.

The first answer came from the Frankfurt, then the Olympic (the Titanic's sister ship), the Birma, the Mt. Temple, the Virginian. All were too far away; one wanted to know something about whether the Titanic had finished with Cape Race; another, in what direction was the Titanic sailing.

Steaming toward Europe was the Carpathia. Her only wireless operator, Harold Cottam, even though officially off duty, just happened to return to his set to listen in. Immediately he heard the good fist of the Titanic's Jack Phillips, sending at 15 or 16 words per minute, calling: "Come at once -- we have struck an iceberg -- it is a CQD SOS OM -- position 41.46 N 50.14 W -- MGY."

A quick acknowledgment ensued. Cottam then raced to the Carpathia's Captain Arthur Rostron, who had gone to bed, and told what had happened to the Titanic. And then with the Captain's answer in hand, raced back to the wireless room to tell the Titanic that the Carpathia was approximately 58 miles away and coming at top speed to give assistance. They would be at the given location by 4 A.M. With that, Captain Rostron rallied his officers and crew to prepare themselves for picking up the survivors, and ordered those below to pour it on. Her top speed of 15 knots gradually climbed to 17 knots.

Captain Smith of the Titanic was relieved to know that help was on the way, but an arrival of help at 4 A.M. would be too late. The Titanic would be gone by 2:30 A.M., if not sooner.

Cape Race copied the Titanic's distress call and the news spread quickly to the world. Amateurs copied the plea, too, including David Sarnoff atop the Wanamaker Building in New York.

Were the reports true? Was the Titanic -- the greatest, unsinkable ship in the world on her maiden voyage -- really sinking?

(Continued on Page 31)

HERO OF THE TITANIC

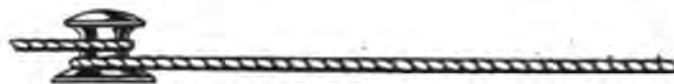


JOHN GEORGE PHILLIPS

The Wireless Hero of the "Titanic"

Marconi wireless operator John George (Jack) Phillips to whom more than 700 survivors of the ill-fated liner owe their lives. Phillips remained at his post long after his captain had urged him to abandon his cabin. His junior operator, Harold Bride, survived the disaster.

(Photo courtesy Marconi International Marine, Ltd.)



WHERE MANHOOD PERISHED NOT

*Where cross the lines of forty north
And fifty-fourteen west
There rolls a wild and greedy sea
With death upon its crest.
No stone or wreath from human hands
Will ever mark the spot
Where fifteen hundred men went down,
But Manhood perished not.*

*Old Ocean takes but little heed
Of human tears or woe.
No shafts adorn the ocean graves,
Nor weeping willows grow.
Nor is there need of marble slab
To keep in mind the spot
Where noble men went down to death,
But Manhood perished not!*

*Those men who looked on death and smiled,
And trod the crumbling deck,
Have saved much more than precious lives
From out that awful wreck.
Though countless joys and hopes and fears
Were shattered at a breath,
'Tis something that the name of Man
Did not go down to death.*

*'Tis not an easy thing to die,
E'en in the open air,
Twelve hundred miles from home and friends,
In a shroud of black despair.
A wreath to crown the brow of man,
And hid a former blot
Will ever blossom o'er the waves
Where manhood perished not.*

Anon

(From Sinking of the Titanic - Published 1912)
Furnished by member - George Meek.

SOS : CQD : SOS : CQD : SOS : CQD

"AUTUMN" IN HYMNAL PLAYED BY BAND OF THE TITANIC AS LINER SANK INTO THE WATERS OF THE NORTH ATLANTIC.

AUTUMN F. 7, 8, 7, D. Lyrics von Esch, c. 1510

God of mercy and compassion, Look with pity on my pain;
Hear a mournful, broken spirit Prostrate at Thy feet complain;
Many are my foes and mighty; Strength to conquer I have none
Nothing can uphold my goings But Thy blessed Self alone. AMEN



Come!

Quick!

Danger!

Saviour, look on Thy beloved, Triumph over all my foes; Turn to heavenly joy my mourning, Turn to gladness all my woes; Live or die, or work or suffer, Let my weary soul abide, In all changes whatsoever, Sure and steadfast by Thy side	When temptations fierce assault me, When my enemies I find, Sin and guilt, and death and Satan, All against my soul combined, Hold me up in mighty waters, Keep my eyes on things above— Righteousness, divine atonement, Peace and everlasting love
---	---

Furnished from collection of George Meek. Pub. 1912.



TITANIC-(D'ONOFRIO)

(Continued from Page 30)

Aboard the Titanic, in a tilted room, Phillips and Bride continued at their work while the lifeboats were being lowered into the eerie, freezing water below (women and children first was the rule). The Titanic was slipping faster at the head, lifting its stern clear out of the water. Those that could not, or would not, take to the lifeboats drifted resignedly toward the drier sloping areas of the stern, huddled together away from the menacing sea. The band there was playing ragtime.

"Go and see what's happening out there," yelled Phillips to his friend, as the power was beginning to go, although the ship's lights were still burning. Bride took a quick survey and reported back "She's going faster now; the boat deck is almost awash." He put a coat around Phillips and then assisted him on with a lifejacket.

Water was now slopping about the room, up to their ankles, when the door opened and Captain Smith appeared. "You two lads look after yourselves. I release you from your duty. Go, and God be with you."

Nevertheless, Phillips continued sending, for just another minute might make the difference. "Gather up our things," said Phillips; "the power's going, and so are we." He sent several V's as he attempted to adjust the set, V's that were heard by the Virginian. The big clock read 2:10 A.M.

Bride gathered up some loose change and other personal effects belonging to both and swung back the green curtain to see a large man, probably a stoker, attempting to steal Phillip's lifejacket right off his back. Bride, in a rage, lunged at the brute.

"Stop that..." He was powerful, this unknown intruder, and the three men found themselves tumbling around in the water, which was now near their knees. Bride held him as Phillips came across with a good, solid roundhouse that put the hulk away. He was not moving as the water swirled about them. They knew they had to leave now, or never.

Outside, they looked hastily about, Bride electing to try his luck with a collapsible boat up and to his right that some men were attempting to cut loose, Phillips choosing to find a boat somewhere to his left toward the stern. They shook hands and wished each other good luck.

Bride climbed over the cabin area toward the collapsible. Suddenly, in a great wash of water, the collapsible broke loose and dropped upside down, with the men clinging to it, but with Bride underneath it, for his troubles. His head kept bumping against the underside, but in a great effort, he man-

aged to swim from under his confinement and dragged himself on top (the bottom side) with the others. As they tried to balance themselves, Bride heard the band now playing the hymnal "Autumn," to comfort those still on board the dying ship.

Elsewhere, Phillips found himself also on an upside down boat with Second Officer Lightoller, to whom he confided later about the ice report from the Mesaba, the one that never reached the bridge. The other iceberg messages that the bridge did receive came from the Caronia, the Baltic, the Amerika, and the Antillian. The iceberg reports form an area into which the Titanic was sailing.

Eleven ships were now steaming toward the stricken Titanic, with the 17-knot Carpathia being their best bet at rendering any meaningful assistance, what with the temperature of the water at freezing and the air biting cold.

The Carpathia caught sight of a flare in the darkness at 2:40 A.M., but when they reached the given location, they didn't see anything at first. Then a flare...and another. At 4:10, the Carpathia rescued its first boatload of survivors, exhausted and half frozen.

On the 20-mile away Californian, Chief Officer George Stewart, when told about the flares that had been seen earlier, woke the Captain, but the Captain was loath to pursue the matter any further. Stewart, taking the matter into his own hands, ordered wireless operator Evans out of bed to find out what he could. Without delay, the now informed Captain ordered his ship to the area where the Titanic was reported so that they could render assistance.

The Carpathia rescued the survivors of the Titanic, but Phillips, weakened from his ordeal, slipped into unconsciousness and died shortly before his boat was rescued. Junior Operator Bride, exhausted and near death himself, was rescued and hurried off to the sickbay. Little by little, the Carpathia plucked them from the sea and wrapped them in warm blankets, with both crew and passengers helping the survivors.

The world waited for news; who had been saved? At 8:50 A.M. the Carpathia headed for New York, as wireless operator Cottam tried to handle the deluge of survivor information that everyone was eager to learn. To assist Cottam in the wireless room with this traffic, they carried Bride from the sickbay to lend whatever help he could.

Of the 2207 passengers and crew, 1513 lives were reported to have been lost. Most of the crew were lost, including Captain Smith, and the gallant band who played until the very end.

(Continued on Page 32)

YESTERDAY

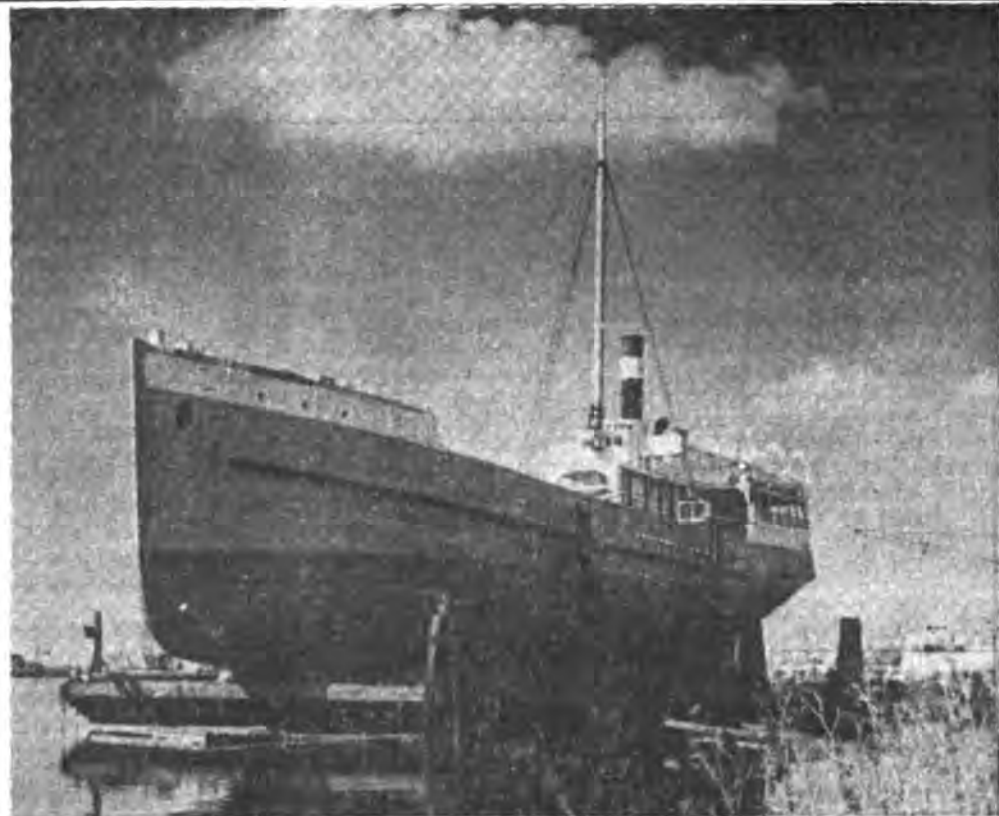


Steam Schooner

Wapama



Scott



(Continued from Page 21)

The steam schooner WAPAMA (WMG), the last of her type of steamship left, is sitting high and dry on a barge in the Oakland Estuary. If she were not floated on this barge, she would certainly sink to the bottom. Her keel is broken and she no longer has any bottom, it having completely rotted away.

The WAPAMA at one time plied up and down the West Coast carrying lumber and a few passengers. This she did for years. The last of her type ship left afloat, she was moored at the San Francisco Maritime Museum for some years. For the last three years or so she has been under the jurisdiction of the National Park Service.

Because of our present economic situation, the National Park Service does not have the funds to repair her and fit her with a new bottom. (I understand that it would take about \$100,000.)

She will be a tragic loss to all who have ever gone down to the sea in ships, but her memory will certainly linger on in the minds of many of us.

We are now in the age of big ships and super tankers and herein ends the age of steam schooners. They were the workhorses of the West Coast for many long years and many of our old timers did yeoman duty on them and their extremely hazardous operations. SEMPER FIDELIS.

Our past president Frank Geisel, #5 SGP, spent some time aboard her. This, he says, was "quite an experience." He tells us that her radio equipment consisted of a Marconi 1/2 KW, 240 Hz, quenched gap transmitter, a 103 type receiver with a carborundum detector, along with a 10-inch spark coil and its 24 volt

'30' de WMG

storage battery for emergency use. In time the 103 receiver was replaced by a more modern receiver known as the Marconi 106 type receiver. This was a loose coupler with a carborundum detector and was a much better instrument than the old 103. I personally have used both of these receivers and much preferred the 106. It could easily be connected to one's personal vacuum tube detector and which by the inclusion of a simple variometer could easily be converted into a regenerative receiver of great sensitivity.

The WAPAMA is now under the cognizance of the National Park Service who say that the present economic situation is such that it is impossible for them to have her fitted with a new bottom and return her to her berth at the San Francisco Maritime Museum. It is estimated it would cost \$100,000.00 to do the job.

A sad end to a memorable ship and the end to the last steam schooner left in the world as well as an era of a unique type of ship.

(Continued from Page 31)

TITANIC - D'Onofrio

The sinking of the Titanic changed maritime regulations as no other single sea disaster had ever done. By international agreement, thenceforth every vessel would have wireless communication equipment aboard and manned by qualified operators, who, in turn, would periodically monitor certain established distress frequencies. Additionally, each vessel would carry sufficient lifeboats to ensure a seat for everyone on board. Furthermore, ice patrols would scout the seas and report on any sightings affecting navigation.

The saga of the Titanic ushered in an era of maritime safety and radio communication that makes sea travel as safe as our technology can make it.

Truly, they did not die in vain.



S.S. CARPATHIA, docked in New York circa 1903. She answered the distress call of the SS TITANIC and was first to rescue passengers from the doomed liner. Picture courtesy of the Steamship Historical Society Library.

"Killer-Bergs" of the Atlantic



Icebergs can assume fantastic shapes after they break off from the mother glacier and start the long, slow journey through Baffin Bay and Davis Strait to threaten the shipping lanes of the North Atlantic. The one in the picture above was sighted by the Coast Guard icebreaker EASTWIND (since decommissioned) during a voyage that took her to a point in the solid polar ice slightly less than 442 miles from the North Pole.

The berg pictured at bottom of Page 28 is somewhat less impressive visually, but this is believed to be the one that sank the TITANIC on April 14-15, 1912. The photo was taken from the deck of the cable ship MACKAY BENNETT, one of the first to reach the scene of the disaster.





To-day's Wireless News.

Wednesday, February 25th, 1925

'AUSONIA'



THROUGH BOOKINGS.

THE great expansion of the Cunard with its Associated Lines makes it possible for passengers to effect through bookings to all parts of the world. Each Continent is linked up by the ramifications of the lines, and arrangements have been established whereby ocean and rail tickets can be supplied by the Cunard Company to all the chief ports and towns of the world. Full information will be supplied at all offices and agencies of the Company, whose experienced officials are at the service of actual or prospective passengers

FUTURE SAILINGS.

ANY information on the subject of the future Passenger Sailings of Cunard Liners, together with rates of passage, may be obtained on application at the Purser's Office. Details of through bookings by the Cunard and Associated Lines are also available.

WIRELESS MESSAGES.

MESSAGES for transmission by radio to all parts of the world are accepted on board this ship. They should be handed in either at the "Wireless" Office or the Purser's Bureau.

TELEGRAPHIC CODE.

A COPY of the Western Union Telegraph Code may be referred to on application at the Purser's Office.

A NEW DISARMAMENT CONFERENCE

The political correspondent of the "Daily Mail" says the Government has decided to co-operate with America in seeking to build up another international disarmament conference.

Mr. Austen Chamberlain, Foreign Secretary, has arranged with Mr. Kellogg, the new U.S.A. Secretary of State, that he will be prepared to attend such conference during the summer, if an agreement can be reached with the other great powers. The conference as now envisaged would not deal with the limitation of army units, but could almost certainly determine naval construction, with reference to cruisers and submarines.

Washington is more anxious than ever to curb competitive building of cruisers, submarines and other auxiliary craft. It is regarded as certain that no formal step will be taken before Mr. Kellogg is installed in the State department next month.

Japan wants to know Agenda of Conference.

Tokio.—It is understood that before Japan commits herself to take part in the disarmament conference convened by U.S.A., she must know what are the suggestions for the agenda. Japan welcomes a broad principal of further limitations of armaments, but will not agree to limitation in size or the number of submarines and destroyers.

HAWAIIAN DEFENCES ARE OBSOLETE

Washington.—Brigadier-General Mitchell, head of the U.S.A. Air Force, stated before the aircraft committee that the defences of the Hawaiian Islands were as obsolete as bows and arrows, and that Japan could capture both Philippines and Hawaii with ease. The latter, he declared, could not hold out more than two weeks.

RACING

Windsor Royal Handicap Hurdle.—Castile first, fours. Young Man's Fancy, second, fives. Flown Away, third, fours.

SEIZURE OF SCHOONER DENOUNCED

New York.—The seizure of the British schooner "Marjorie Bachman" last October by agents of the U.S.A. revenue service, was denounced by Federal Judge Morton, at Boston, as "an action showing lack of good faith on the part of the Government towards a friendly foreign power." He refused to accept the shorthand reports of the examination of the schooner's captain, regarding ownership of the vessel, as it was taken while he was a prisoner.

CAILLAUX RETURNS TO PUBLIC LIFE

Paris.—M. Caillaux, ex-Premier of France, has returned to public life. He was the chief guest at a political banquet given in his honour. The guests included 2,000 socialists and radicals, also members of the Grand Order of Freemasons. M. Caillaux was in April, 1920, sentenced to two years deprivation of civil rights, three years imprisonment and five years banishment from Paris, on a charge of corresponding with the enemy during the Great War, also furnishing information harmful to the interests of France.

AIRMAN'S UNUSUAL PASSENGER

Mr. Alan Cobham, the famous air-taxi man, who has piloted Air Vice-Marshal Sir Sefton Brancker from England to Burma, states in a message to the "Daily Mail" that for the first time in history he took a Hindu Maharani for a flight in his aeroplane over Delhi. The Hindu custom was observed of having her strictly screened from public observation.

THE FRANC

Paris.—M. Clementel, Minister of Finance, is to bring in five Bills with a view to establishing an improvement in the French financial situation. They are measures to remedy fiscal frauds, to provide a better collection of taxes, and to create a new amortisation department.

MONEY ORDER AND DRAFT BUSINESS.

DRAFTS can be purchased in Great Britain on all the principal offices of the Cunard and Associated Lines throughout the world.

Drafts drawn in America and Canada to the limit varying from £10 to £50 can be purchased for remittance, and are payable at almost any town throughout Great Britain.

Similarly, unlimited drafts are also issued in currency on all the principal offices in Europe.

In addition to the Drafts Business the Company have facilities for transferring money from America to the principal centres of Europe through the medium of their Remittance Business.

Money can be deposited at their agencies in the States or Canada, and remitted by cable or mail advice at the rate of exchange for the day.

VALUABLES, MONEY, ETC.

IT is always advisable that money and articles of value should be handed to the purser for custody in the ship's safe. Unless this precaution is observed the Cunard Company will not assume any responsibility for any articles of value or money which may be lost or stolen during the trip.

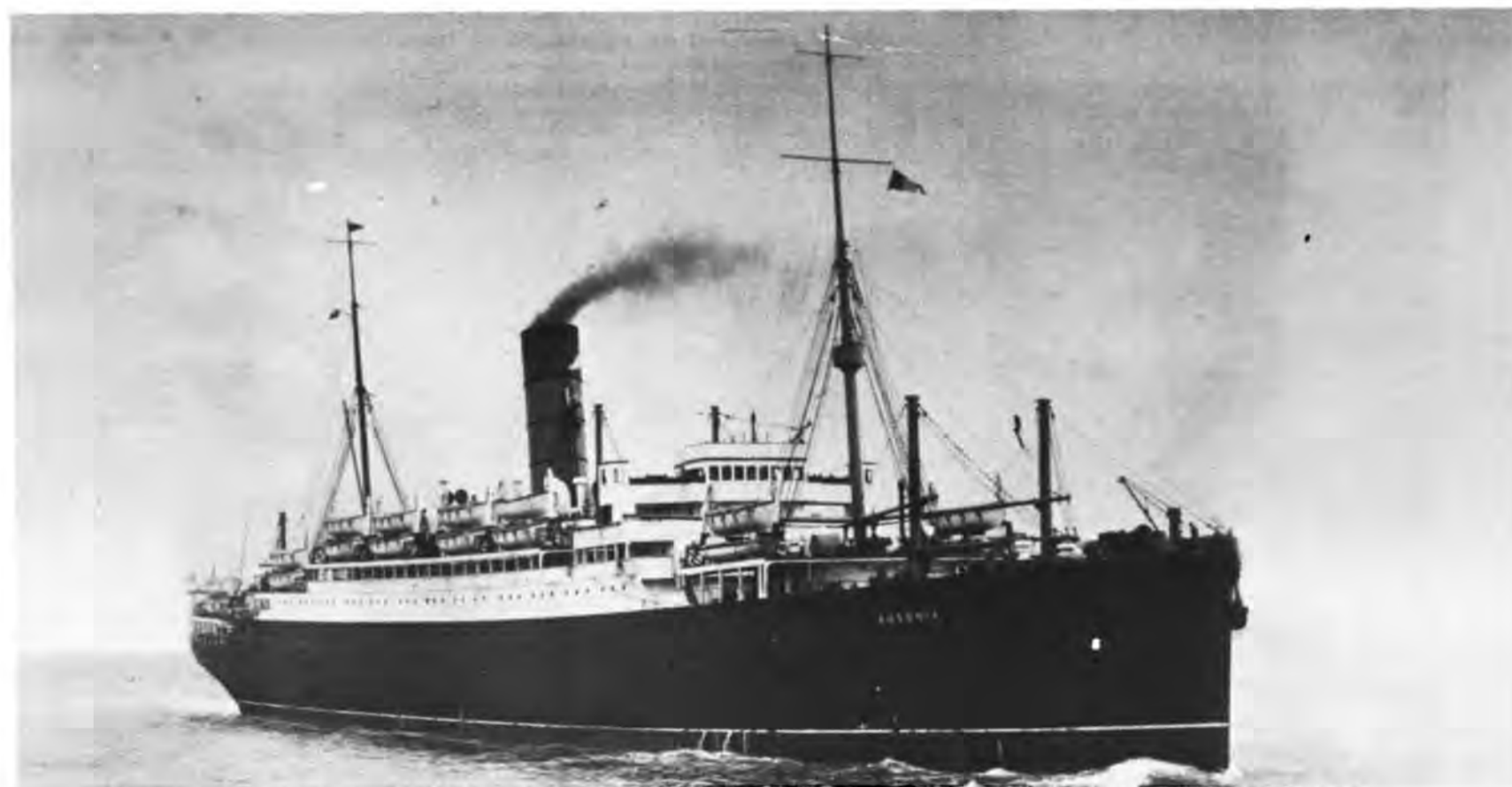
STATIONERY AND STAMPS.

A N ample supply of writing material will be found in the Library and Writing Rooms of every steamer. Postage stamps may be purchased from the library steward, who will also take charge of all letters, telegrams and cables for despatch.

RUGS AND DECK CHAIRS.

DECK chairs are in the charge of the deck steward, to whom application must be made. A charge of 7s. 6d. is made per chair, which is then reserved for the voyage. A similar charge is made for rugs.

Capt. Charles E. Biele 768-SGP



Picture of R.M.S. AUSONIA furnished by member Capt. Charles E. Biele - 876-SGP

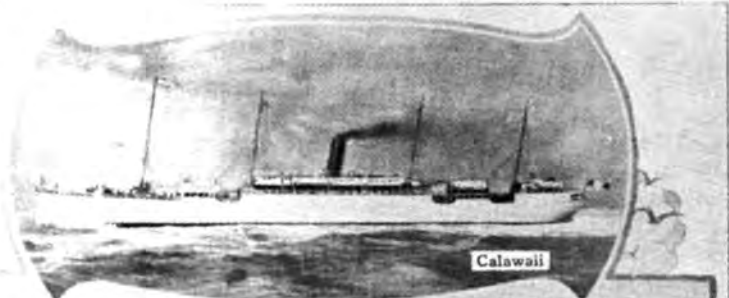
Ships of the CUNARD LINE furnished their passenger with 'News of the World' during their transit across the "Western Ocean". It generally consisted of 8 to 12 items of prime interest inserted on the inside of the 4-page circular. The 'WIRELESS NEWS SHEET' above is from the original copy of news furnished aboard the HMS AUSONIA on Feb. 25 1925. It will be noted that the outside columns carry standing information of interest to travelers. Large ships usually carried a printer who set up the news in type after the Marconi-men or Wireless Officers copied it from Pohldu or Canadian and American Stations. News (PX we called it) was generally furnished in much greater detail on the larger ships. It also included stock quotations, sports and weather reports (when good) of ships we might pass en route. We wish to thank member Capt. Charles E. Biele for furnishing us this bit of memorabilia of the early days.. He is "Spark-Gap" Pioneer No. 768. His first ship assignment was the SS TREDINNICK/GDWQ back in 1924. He later held many responsible positions in the USN (CO or XO circa 1930-1961).

SS. City of Los Angeles - KOZC Ex. Aeolus of Munson Line

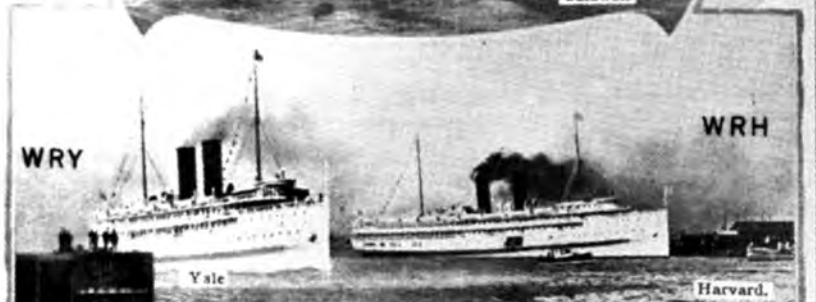


LASSCO STEAMSHIPS

KFDT



Calawai



WRY

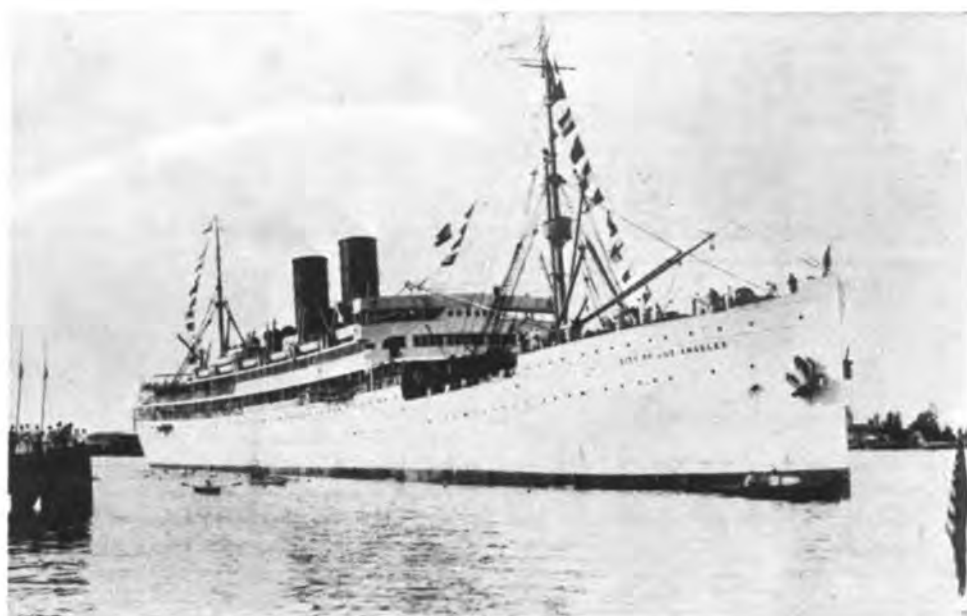
WRH

Yale

Harvard



City of Los Angeles



SS. CITY OF LOS ANGELES

Back in 1921-22 "Ye Ed" made 3 trips around South America on the SS. Rotarian - KDCF (later renamed SS CONDOR). While we were docked in Buenos Aires, a BIG ship of the Munson line was beached directly behind us. I visited the ship the following day, met the Radio Operators of the ship whose name was the SS Aeolus-KOZC. I thought at the time "what a wonderful assignment this would be" little realizing at the time that in the space of a few years I would be on the ship, in the same port but under a different 'house-flag'. My fantasy was to come true.

It was but a few month later that the Munson Line sold the Aeolus to the newly formed Los Angeles Steamship Co. (Lassco). Our good member, C.J."Jeff" Carr Sr. (188-SGP) was to bring the Aeolus to the West Coast as Chief Operator. Following a major overhaul, he stayed aboard for the Maiden Voyage of the ship renamed "City of Los Angeles" (same call, ie: KOZC). The first trip was sponsored by the Los Angeles Chamber of Commerce.

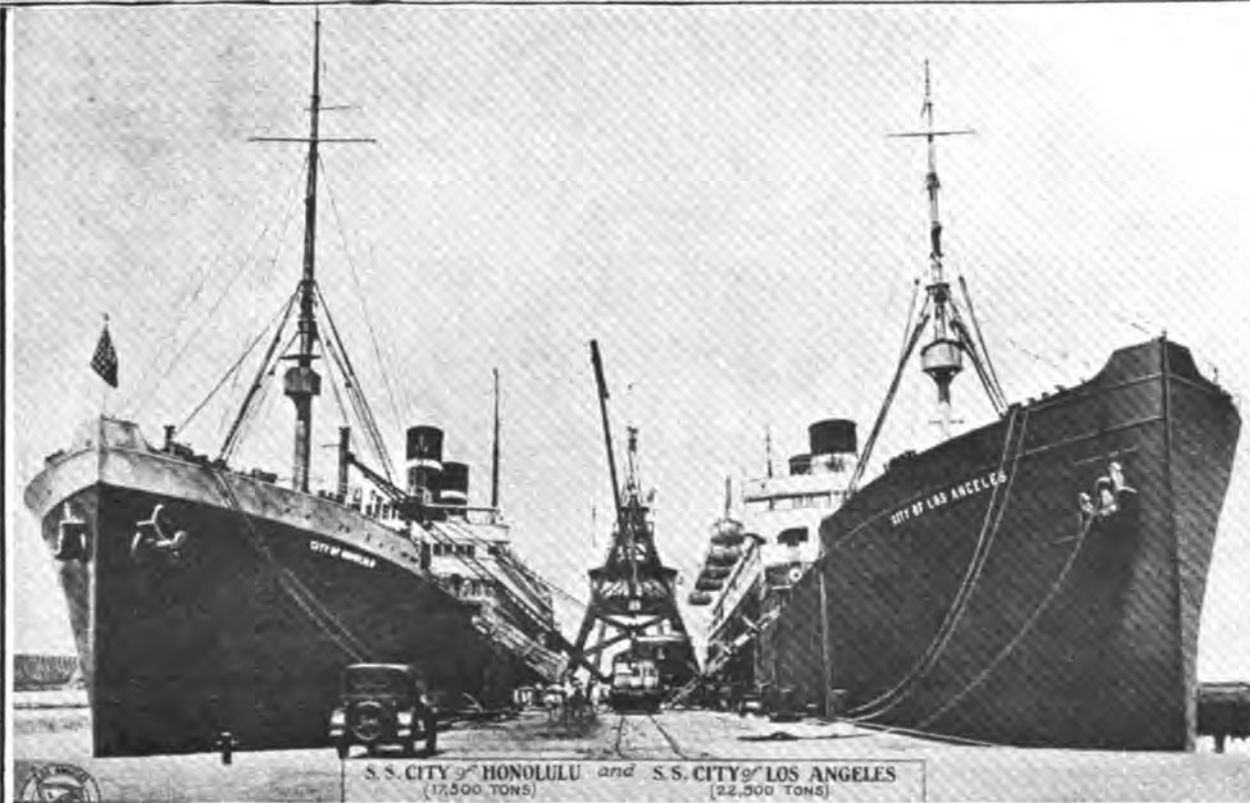
+Pictured above are ships of the LASSCO "Fleet" with the exception on the SS City of Honolulu which burned at sea Oct. 12 1922. The SS. Calawai pictured at top replaced the City of Honolulu on this run for a period of time. Ships in the center are the SLEEK AND TRIM SISTER SHIPS -- Yale and Harvard..."SPEED KINGS OF THE PACIFIC". The number of Wireless Officers assigned over the years to these two ships probably exceeded all other ships of U.S. Registry.

At the bottom is the SS. City of Los Angeles - Flagship of the LASSCO Fleet.

During the following years many operators served on "KOZC". Included among those who staffed the radio room were Fred Brock (who also made the trip from the East Coast); Messrs. Vern Tashner, Jacobs, Ernest F. Wilmshurst, Leon Cameron, Monroe G. Sommers and "Ye Ed" who called KOZC 'home' for 18 months. "MG" Sommers (Willie to his friends) was Chief for about five years. 'Ye Ed' made two trips during his assignment as CHOP. This included the FIRST "Around South America" Excursion tip of the Liner. We had 27 millionaires aboard and they spent money on radio-grams like it was going out of style. Our 'hook' was never entirely clear and we did our bit of 'sweating' at times to unload our messages.

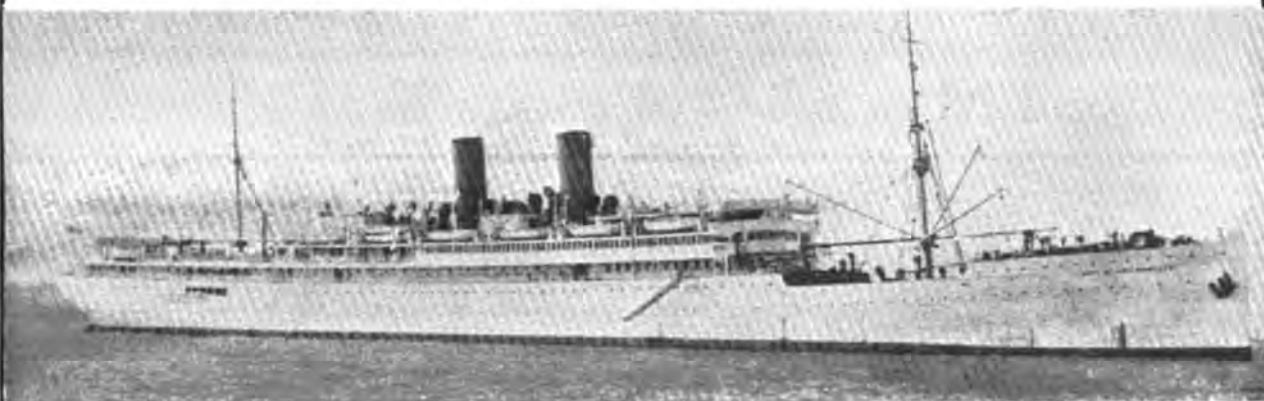


RADIO ROOM S.S. CITY OF LOS ANGELES - KOZC TAKEN 1929 by A. "KEITH" SINGER



S.S. CITY OF HONOLULU (17,500 TONS) and S.S. CITY OF LOS ANGELES (22,500 TONS)

The SS. CITY OF HONOLULU (left) 17,500 Tons and the SS. CITY OF LOS ANGELES (Right) 22,500 tons photographed July 21 1922 just after arrival at the Los Angeles Shipbuilding and Drydock Corpn. 'fitting-out' wharf in Los Angeles harbor. They had just been allocated by the U.S. Shipping Board to the Los Angeles Steamship Company for establishment of a new direct de luxe passenger and fast freight service to Honolulu and Hawaii. They will undergo complete reconditioning, refurbishing and decoration of passenger's quarters in preparation for their new service. Each of these great luxury liners is also to be painted white with black stacks, similar to the famous coast wise liners Yale and Harvard, which are owned and operated by the same steamship Co.



SS. CITY OF LOS ANGELES - KOZC

Picture taken after major reconditioning and repainting - ready for her "Maiden Voyage" to Honolulu in Sept. 1922. SOWP Member "Jeff" Carr was Chief on Trip No. 1 to 'Alohaland'.

The City of Los Angeles was built in Danzig Germany in 1889. She was as the GROSSER KURFUST-DKG. She was renamed SS AEOLUS and taken over by the U.S. Government during WW-1 (without name change except prefix used was USS AEOLUS. The name continued to be used by the Munson Line on her schedule to RIVER PLATE ports.

She made 119 round-trips for LASSCO between LAX and Hawaii ending her career as a Lassco Liner in 1932. During this time, Ye Ed made 15 trips to the Islands on KOZC plus the first "AROUND SOUTH AMERICA CRUISE".

The City of Los Angeles, taken over by the U.S. Navy during WW-2 came to a sad end as reported in Navy Communique #135 which said the USS GEORGE F. ELLIOTT (x) City of Los Angeles was hit by a Japanese torpedo plane in the Solomon Islands on Aug. 8th (year not furnished). The torpedo started gasoline fires which could not be extinguished and the USS Elliott was abandoned and destroyed. There were a few casualties. The last visit of the City of Los Angeles to Honolulu was in 1934 when returning from her second "Exploration Cruise to Little Known South Sea Islands. She has been removed from LASSCO service during the amalgamation of Lassco and Matson in 1932.

BILL BRENNIMAN'S "ALL-WAVE" RECEIVER



Picture taken aboard top-side KOZC at some South American's port showing 'Ye Ed's' all-wave receiver which he designed and built for reception on all frequencies (almost that is)! It had honey-comb coils for long waves and also covered the short wave bands. Push-pull audio and R.F. amplifiers. Show in the rear view. We were able to copy 'PX' from all over the globe. Also covered the KPH experimental station. (Arrangements had been made to monitor 6XX and a LAX station 6XC. We did not have short wave to QSL traffic sent blind but did report in service messages the receipt of considerable traffic.

"Ye Ed" was relieved in 1929 from KOZC to take a landside position with the new Air Mail Service - now FAA. His relief was A. Keith (Ken) Singer who has furnished the picture of the radio room shown on the opposite page and other pictures. Ken now lives back in Shawnee Mission, KS and has amateur radio station W0NWD. He also left the sea for an airways position with TWA. Ken sent an SOS while assigned the S.O. Tanker S.C.T. Dodd/KDML in collision with the SS San Juan, 56 miles SW of Pigeon Point, CA. The tanker sustained hull damage but rescued 23 passengers from the San Juan. SOS brought the SS Munami and a USCGC Date was Aug. 29 1929.



MONROE G. SOMMERS (GS)
Taken at Honolulu about 1928. He was Chief-KOZC for about 5 years. Left for shoreside assignment with TWA.

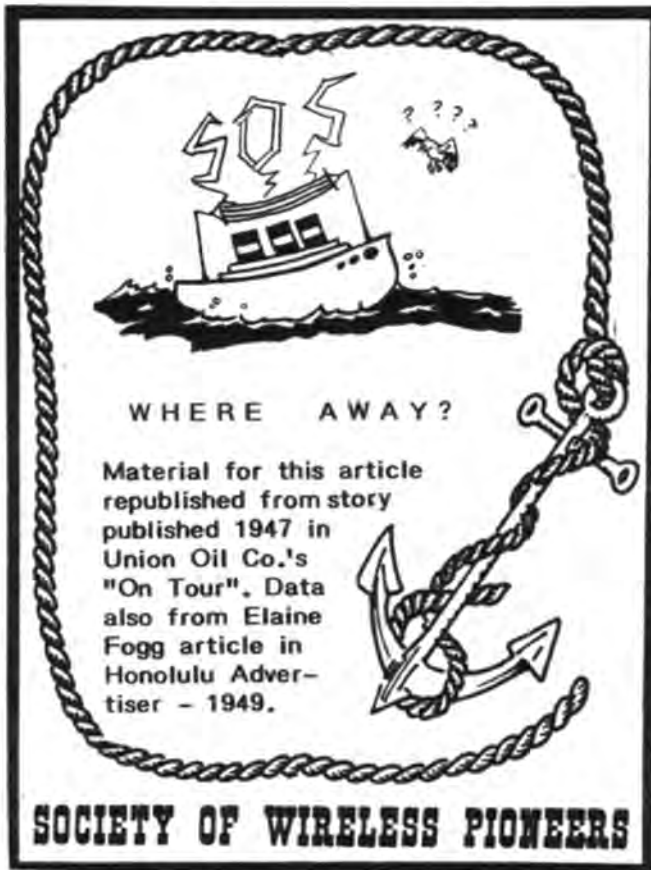
SS. CITY OF HONOLULU-KUSD AFIRE AT SEA



The 'story' of the burning of the SS. CITY OF HONOLULU (KUSD) was told in detail in the Society's 1973 Year Book. The fire occurred Oct. 12 1922 about 700 miles West of the Pacific Coast. The precise position was Lat. 31-07 N., 131-40 W. Operators included W.P. Bell (Chief); H.D. "Duke" Hancock (2nd) and Norris C. Kumler (3rd) who was on watch when fire was discovered. "SOS" was sent at 8.30 AM as ship was being abandoned and all except Capt. Lester, the Chief Mate, Chief Engineer and Chief Radio Officer Bell left the ship. The SS. West Farallone picked up the survivors about 4PM. Transfer was made the next morning to the USAT THOMAS as the West Farallone could not accommodate the 262 individuals rescued from the stricken ship. Chief Bell was working at great odds just before abandonment as the ship was listing to the starboard over 35°. However his sending was smooth and steady - as cool as his nerves. Two hundred and sixty two owe their most ultimate debt - their lives to the Wireless and the efficient trio aboard who were responsible for its operation. WAB.

SHIPS OF THE PACIFIC - GONE BUT NOT FORGOTTEN

A JOURNEY BACK THROUGH THE MISTS OF TIME



Many 'SGPers' Still Enjoy Fond Memories of these Proud Ships

'Ships never die!'

The Rio de Janeiro hasn't died, really, though over three quarters of a century has passed since she kept her rendezvous with destiny at dawn one late February morning back in 1901 after she had arrived in the Golden Gate only to slip away in the fog and never a trace of her or her 128 passengers and crew. Of course, that was before wireless, direction finders, radar which were to come ...

Yet, along the waterfronts of the world, where old-timers occasionally still meet and seamen's stories are handed down, the Rio lives and sails again. Particularly, she sails that last voyage that ends always in a question. Was there a secret cargo of gold aboard the Rio when she went down?

And what of the proud ships that followed her into the life of this island community - and out again? Are they alive and steaming somewhere, under other names and other flags, down other seas? Or have they, too, dropped anchor in that port beyond the last horizon?

They may come to the end of their intended usefulness by sinking ...

S.S. WILHELMINA

That's what happened finally to the Wilhelmina. First of the Pacific luxury liners to operate exclusively between the West Coast and Hawaii, the Wilhelmina was considered a bold venture when she was delivered to Matson back in 1910. She had been completed the previous year at Newport News.

Built into her 426.1 feet and 6,725 gross tons were "magnificent" accommodations for 146 passengers and enough excess oil capacity to enable her to steam almost around the world without stopping for fuel. This large bunker capacity came in handy during her World War I troop-ship service on the Atlantic. She was frequently called upon to refuel small naval units at sea.

For 22 years, except for that wartime diversion, the Wilhelmina trudged reliably between West Coast ports and Honolulu. Then, in 1932, she was laid up in the harbor by the Golden Gate.

She brooded there, all but forgotten, watching the flagship honor which had once been hers pass from one to another of her newer Matson sisters. In 1940 she was sold to the British, renamed Coventry and put into service as a trooper for the second time in her 31-year career.

Her role in World War II was destined to be brief, however. She was sunk in 1942.

At the time of her sale the old ship's bell was removed and presented by Miss Wilhelmina Tenney to Harbormaster James L. Friel. It stands mounted in his office today, its polished brass gleaming, its simple inscription an epitaph to one of the Pacific's historic liners: "Wilhelmina - 1909."

EMPRESS FLEET

Davy Jones eventually claimed three of the proud Empresses. First to go was the largest and newest of the fleet, the 733.3 foot, 43,348 gross-ton Empress of Britain, built for Canadian Pacific in Glasgow in 1931.

Her career ended October 26, 1940, in the blockade area north of Ireland. A torpedo got her first; then German planes swooped in to finish the kill. They say she stayed afloat a long time, a ship of solid flame, before the waters of the North Atlantic mercifully drew her under.

Most venerable of the Empress fleet, the Asia was already 17 years old when she called at Honolulu for the first time in January, 1930. She was another product of Glasgow.

It was off Singapore in the Pacific that she found her final resting place. She was heavily attacked by Japanese bombers while transporting troops to the Far East and went down in February, 1942, with a loss of 19 lives.

In 1931 the nine-year-old Empress of Canada set a new Yokohama-Honolulu speed record: 6 days, 11 hours. (It was outstripped by four hours the following year by her sister, Empress of Japan, which was renamed Scotland early in the war and is now being reconverted at a British yard.)

But in the end, the Canada's fleetness was not enough to save her. An Italian sub caught up with her one midnight in 1943 off Freetown, West Africa. She fought gallantly for 80 minutes to stay afloat. Most of the 400 who perished in the sinking were victims of sharks.

PRESIDENT "535's"

Thousands of miles apart, one in either ocean, are sunk two of the famous pre-war Presidents. Ironically, it was one of our own mines that got the President Coolidge.

It was in October, 1942, off Espiritu Santo in the New Hebrides, when the 615½ foot, 21,936 gross-ton ship was only nine years old. There were more than 5,000 troops aboard, plus the transport's personnel. How Capt. Henry Nelson directed the abandon ship operation so that it was completed with only two lives lost is a sea story that will live as long as sea stories are told.

A month after the Coolidge went down, the President Cleveland was sunk by a German sub off Casablanca during the invasion of Africa. She was wearing her third name, Tasker H. Bliss, at the time.

Built in 1921 as the Golden State, she was one of a series of "535a" produced for the U.S. Shipping Board after World War I. The 517 foot, 12,568 gross-ton vessel had been taken over by the army and renamed in 1941.

SINKING OF THE SS. NIAGARA - GOLD RECOVERED

Coincidentally, it was the President Cleveland that relayed to Honolulu the first word received here of the Canadian-Australian liner Niagara's sinking on June 19, 1940, off Auckland, N.Z. A number of Islanders, homeward bound, were aboard the 27 year-old ship when she was struck by an Italian mine and finally went under.

No lives were lost. In fact, the biggest news about the Niagara sinking came long afterward - when divers went down and wrested from her rotting hull a fortune in gold bullion that had been a part of her cargo on that fateful voyage.

Virtually all the gold was recovered. And now, at last, the old Niagara is left to rest and dream undisturbed among those strange gardens that bloom along the ocean's floor.

THE "LASSCO" FLEET - SS CITY OF HONOLULU BURNS

Strange, isn't it?, that both the first City of Honolulu and her namesake in the Los Angeles Steamship Co. fleet should have met their mortal enemy in fire. Yet, that is how it happened.

The first liner of that name, with a companion called City of Los Angeles, began LASSCO's service in July, 1922. It was the first direct passenger link between Southern California and Hawaii. Both ships were converted German-built vessels turned over to the United States in partial payment of a defeated nation's war debt.

It was only three months later, on October 12, when the City of Honolulu was within 670 miles of California on a home-bound voyage, that fire was discovered at 4 a.m. in the second class sector. There were 145 crew and 72 passengers aboard.

Four hours after his original SOS, the radio operator clicked off his final message: "Goodbye, all." And three vessels speeding to the rescue knew that, aboard the burning liner, the time had come to abandon ship.

"Radio Makes History at Sea, Saving Lives of 217," was The Advertiser's headline as the news reached Honolulu. In 1922 radio at sea was still something of a miracle.

The freighter West Farallan arrived first to the rescue, followed by Matson's Enterprise and the transport Thomas. It was an orderly disaster. No one was injured nor even panicked as passengers and crew abandoned ship and were transferred six hours later to the West Farallan and to the Thomas.

(Continued on Page 37)

(Continued from Page 36)

As for the burning liner, she was judged beyond salvage. Gunfire from the naval cutter Shawnee sent her to the bottom.

Like her predecessor, the second City of Honolulu was German-built (1900) and acquired in reparation. She had begun her career as the Kiautschon and subsequently bore the names Princess Alice, Princess Matoika and President Arthur.

LASSCO did a bang-up job of converting her and laid on the Hawaiians with a heavy hand. In her public rooms were mosaics depicting Capt. Cook's "discovery" and other historical island events. A crowning touch was the three-foot replica of the Kamehameha statue which stands in front of the Judiciary building.

Honolulu worked itself into a frenzy of excitement over the new liner as she called here for the first time June 10, 1927. Her white-hulled 523.5 feet and 10,680 gross tons added up to a charming picture, resting serenely at Pier 8.

It was at Pier 8, too, where flames found her on May 25, 1930. The quiet late Sunday afternoon was shattered by the shrieks of sirens, by the shouts and clatter of spectators who jammed the waterfront.

It was a fire that kept the local newspapers in headlines and the populace in conversation for weeks. The Honolulu was finally towed back to the Coast, a proud passenger ship no longer, and eventually was sent out to the Orient for scrapping.

But there are those old-timers who shake their heads and wonder if the scrapyards really did claim another victim. They could swear, some of them, that years after ward in obscure corners of the world they caught glimpses of a silhouette that stirred old memories, that reminded them strangely of a ship they once had known - a ship called City of Honolulu.

EMPRESS OF RUSSIA BURNED

Fire cheated war out of one of the Empress fleet. She was the one called Russia, another 1913 product of Glasgow's prolific shipyards.

She had already seen several years of war service when, in 1944, she was sent to the Clyde for added improvement as a trooper and for new engines. The job was never completed. She burned where she stood on the drydock.

S.S. PRESIDENT HOOVER BOMBED ON YANGTZE

Year of destiny for the President Hoover was 1937. That August 30 while she was lying at anchor off the Yangtze river, awaiting a pilot to take her up to Shanghai she found herself an unprepared party in a war.

A squadron of Chinese planes came over at 5:40 p.m. and mistook her for a Japanese troopship. Down came seven bombs - one of which scored a direct hit. One passenger was killed, seven crew were injured and the liner herself was a casualty to the extent of \$500,000.

Repairs completed, this sistership of the Coolidge (although built a year earlier, in 1930, Newport News) was soon back in transpacific service for Dollar Line. But not for long.

On December 11 she ran aground at night on a little island off Formosa. Passengers and crew were transferred to safety. The Hoover was given up for lost and left to break up on the rocks.

THE '502's"

It wasn't an accident, really, that the old President Polk went aground on Canton Island in 1942. She was driven there by an enemy sub, but at the end of the chase she was beyond salvage.

One of the 502 foot, 10,508 ton ships built for the shipping board in '21 and typed "502", the Polk had begun her career as the Granite State. She ended it as the President Taylor, after yielding her second name to the present Polk in 1941.

Another 502 victim of wartime grounding was the President Adams, whose usefulness was ended on a reef off New Guinea in the summer of 1944. This one had been at Manila during the heavy Japanese attacks December 7-15, 1941, but had made a run for it and had reached home and safety after a long, risky voyage.

She was built as the Centennial State. In 1941 she passed the name Adams along to a newer American President Lines ship and became the President Grant.

S.S. HAWAII

For more than 20 years after she was built in San Francisco in 1924 for Inter-Island Steam Navigation Co., the little 851 tonner Hawaii had been wriggling skillfully into and out of the shallows around this chain of islands. Then fate led her to a pile of rocks off Samar in the East Philippines.

That was less than two years ago, in March, 1947. The Hawaii had been sold to De la Rama Steamship Co. of Manila and renamed Surigao. An all-Filipino crew came to Honolulu to deliver her to the new owner.

It was an appointment not quite kept. The little steamer went aground, then sank, just short of her destination.

MEMORIES OF THE CALAWAII

... falling to pieces in an anchorage or scrapyard ...

Sixteen years have gone since she last called at this port; more than 10 since she pointed her bow toward the Orient and the scrapyard. Yet, the name "Calawaii" still kindles a gleam of interest and affection in the eyes of many an Islander.

The Calawaii was no kid when she came to Honolulu on her maiden call February 18, 1923, successor to the first City of Honolulu. She had been built in Belfast 30 years before and originally was operated under the British flag as the Mobile.

Subsequently she became the U.S. army transport Sherman for the World War I service. LASSCO bought her from the quartermasters department, converted her from coal to oil and dressed her up as a luxury liner. "All staterooms equipped with electric fans," it boasted about its new prize.

But it was more than electric fans in every stateroom that endeared the Calawaii to Hawaii's traveling populace. It was that certain quality some ships have and others don't; something that might be called "personality" in a human being but is called "happy" in a ship.

The Calawaii was withdrawn from service in 1932 when Matson, which had absorbed LASSCO two years earlier, began its triangular San Francisco-Los Angeles-Honolulu service. Not long after her retirement, the 39 year-old Calawaii headed for the scrapyard.

OCEANIC TRIO: SONOMA, VENTURA, SIERRA

The last time Honolulu saw Oceanic Steamship Co.'s three famous sisters, Sonoma, Sierra and Ventura, they were flying the Japanese flag, carrying Japanese crews and wearing the suffix "Maru" after their otherwise familiar names. They were bound for Japanese scrapyards.

All three were built in Philadelphia in 1900. Sonoma and Ventura were sisterships, 400 feet long, 5,985 gross tons. The Sierra, ex-Gdansk, was the same length but 6,023 tons. They were names for counties in California.



Because He had Vision and Courage

WHEN the beautiful ship Malolo rounds Diamond Head and moves majestically into Honolulu Harbor many of us here will see in fancy not the mighty steamer, but through a memory haze as the little trading schooner Emma Claudina, with a clear-eyed, sturdy youth at the wheel. That youth would be Captain William Matson who, because he had vision and courage, developed from the little schooner the great fleet of which the Malolo will be queen. **C** It is to the pioneer spirit of such men that Hawaii of today owes much of her wealth and prestige,

MARIPOSA - MONTEREY

These three were already on the shady side of 30 when the new Oceanic steamers Mariposa and Monterey slid down the ways and into maritime history. Soon after the new ships came out, the triplets were laid up and then sold for scrap. It was in 1934-35 that they plodded, one by one, toward the rising sun.

S.S. MONGOLIA

For 43 years the Mongolia held out before the scrapyard finally got her, too. Shipbreakers waiting for her at Hong Kong probably didn't know that once she was hailed Queen of the Pacific; that The Advertiser described her on her maiden call as "towering in the majesty of the greatest tonnage (16,111, gross) ever piled in to a single steamship!"

But that had been back in 1904. The Mongolia was the biggest ship yet to venture into Honolulu harbor.

For 14 years she ran the Pacific Mail Line route from California to the Orient, then went to the Atlantic as a troopship. In 1929 she was acquired by Dollar and assigned to round-the-world service as the President Fillmore.

After two years she was laid up in New York. Eventually a new owner came along, a new flag was run up on her gaff and she went back again to the sea, this time as the Panamanian. The end of World War II found her in Shanghai. From there it was only a short tow to Hong Kong, to the scrapyard.

U.S. SCRAP YARDS CLAIM MAUI - MALOLO

They aren't sending worn-out American-flag ships out to the Orient for scrapping these days. Scrap is too badly needed right here in the USA.

So the Maui went up the river to Portland, Oregon last spring to be broken apart. She was built in San Francisco in 1917 and for a few years had her turn at being Matson's flagship.

Even after that honor was taken from her by the Malolo, right up to the outbreak of war, she remained on the West Coast-Honolulu run. As an army troopship she retained her original name and thoroughly covered the Pacific.

Matson didn't want her back after V-J day. Nobody else seemed to want her; nobody but the shipbreakers.

They may even change their jobs and identities; take on strange crews and move to far distant ports;

Her sistership of 1904 has been broken apart at Hong Kong, but the 44-year-old ex-Manchuria is still churning salt water in her wake, still clinging to her status of passenger liner.

Up to 1931, the careers of the sisters Mongolia and Manchuria ran closely parallel. The latter had also been purchased by Dollar in 1929, was renamed President Johnson and put with her sister in round-the-world service.

She continued under that name throughout World War II, serving then for the second time as a troopship, and in December, 1946, was sold to Tagus Navigation Co. of Lisbon. Today she operates as the Santa Cruz, under the Portuguese flag, between the Mediterranean and South America.

At the time Dollar was reorganizing into American President Lines, several of its old ships were laid up at San Francisco. Among them were the President Lincoln (ex-Hoosier State) and the President Wilson (ex-Empire State).

Both were sold to Spanish interests in 1941. The Lincoln is operating now as the Cabo de Buena Esperanza and the Wilson as the Caba de Hornos.

(Continued on Page 38)



S.S. KILAUEA

(Continued from Page 38)

. . . drop from fame into oblivion or disgrace . . .

Motorists along Ala Moana sometimes wonder about the all-gray ship that stands with her starboard ribs leaning against the Pier 6 dolphins like a tired old horse resting against a fence. What is she; why doesn't she ever go anywhere?

She is the Kilauea, one-time pride of the Inter-Island fleet. She has stood there at what used to be Pier 6 for almost two years, ever since her purchase from the war assets administration in February, 1947, by the China Import-Export Co.

And don't let her look of weary resignation fool you. The Kilauea is probably this minute conjuring up some new mischief to perform once those mooring lines are cast off and she has the bone in her teeth again.

Once before it was prophesied that the Kilauea was through. Once before she went into lay-up. That was after her retirement about 10 years ago from the Inter-Island fleet.

But along came the war, and she was purchased by the army. "Smokey Joe" she was called more often than by her name. She threw out such billows of thick, black smoke that no other vessel would risk traveling in convoy with her.

Being a wallflower didn't bother the Kilauea. She was enjoying her second childhood to the full. She reveled in mischief and wore her plume of smoke with a jaunty insolence.

She was a dubious asset to the army but a constant delight to the men who kept her running, after a fashion. More than once her boilers saw the inside of a repair yard - possibly because they had frequently been run on salt water. And Smokey Joe was almost never known to ride at even keel.

There was the skipper whose command of the Kilauea lasted just a few hours before he resigned. He was a new man to the area, one who had heard nothing of the old ship's indiscretions.

First, the wheel stuck. Next he asked for full speed astern - and got full ahead, a mistake that rammed the recalcitrant vessel into the dock.

Feeling a need to cool off, the captain made for a drinking fountain for a gulp or two of ice water. But what he got was a mouthful of fuel oil. That was it. The skipper stormed ashore, never to be seen again on the bridge of the Kilauea.

What is to become now of old Smokey Joe? Nobody knows; not even Theo. H. Davies & Co., Ltd., agent here for the owner. So the Kilauea just stands and bides her time, while on the status sheet of vessels kept at Davies' steamship office are typed just two words: "Awaiting orders."

S.S. MATSONIA-WMP

For many Islanders the name Matsonia is at once associated with the liner which called her regularly up to last April and has recently been sold to Panamanian Lines for operation in the Mediterranean-South America "displaced persons" trade. But there are others who remember the Old Matsonia.

She was the one built at Newport News in 1913; the one that saw service in the first World War and was withdrawn from Matson's California-Hawaii service in 1937 for sale to Alaska Packers Assn. Etoin, the new owners called her.

Still as the Etoin she served as a troop-ship in the second war, completing 28 voyages to Alaska, into the Pacific, to South America and to Japan. Late in '45 she was put into the James River lay-up fleet where, as far as can be determined, she still remains, awaiting disposition.

JAPANESE CAPTURE THE SS PRESIDENT HARRISON

There's something sad about a ship's being forced to turn against the country whose flag she flies. Take the President Harrison . . .

The Harrison (ex-Wolverine State) was in Shanghai at the time the Pacific war began. Her officers and crew made a valiant attempt to ground her and make her useless to the enemy. They succeeded in that it took the Japanese many months to repair the vessel and get her into service.

It wasn't the liner's fault, of course, that she turned "traitor" to her country. And it was probably coincidence rather than retribution that she was later sunk by an American submarine while on her way from Hong Kong to Formosa.

But always in some memory there lingers the vision of each ship in its proud moment and successful hey-day . . .



SS Great Northern (Hazel) San Francisco Bay.

THE GREAT NORTHERN - 3 DAYS 18 H. 57M (S.F.-HU)

In a certain kamaaina restaurant on King Street hangs a large, eye-catching portrait of a ship. The curious one stepping close enough to read the lettering on her bow will discover that she's the Great Northern. Maybe he never knew her personally, but if he has been long in Honolulu he has probably heard of her.

For the Great Northern was the racingest fool steamer ever to assault an ocean or toss a speed challenge to a liner three times her size.

Her San Francisco-Honolulu speed record - 3 days, 18 hours, 57 minutes - stands unbroken to this day by any other commercial vessel. Only one navy ship has been able to beat it.

Built in Philadelphia in 1915 for the shipping board, this triple-screw speed demon was originally the Columbia. She was 509.5 feet and 8,358 gross tons of sea-going "hot rod" capable of churning through the sea at 27 knots.

Acquired and renamed by the Great Northern Pacific Steamship Co., she came soon after completion to the West Coast and Hawaii. It was during this phase of her career, also, that she set a second yet unbroken record: 4 days 2 hours from Hilo to San Pedro. She was ballyhooped as the Floating Palace of the Pacific.



"Float" is not the word her one-time passengers have, however, for what she did when the full-speed-ahead signal rang down to the engine room. Then, from bridge to bilges and stem to stern, she vibrated like a banjo string. Nonetheless, the Great Northern frequently sacrificed passenger comfort to the excitement of a good race.

In 1917 she and her sistership Northern Pacific went over to the Atlantic for war-time service. It was the Great Northern, during her 18 transatlantic round trips that carried the famous Rainbow Division to France. Nor did she let war interfere with her sprinting.

Once she challenged the 950-foot, 59,956 ton liner Leviathan to a transatlantic race. And won. It's another Great Northern speed record which still stands: 11 days for the round trip from New York to Southampton.

SS. GREAT NORTHERN RENAMED SS H.F. ALEXANDER (SPORT - RACING PASSENGER TRAINS ON PACIFIC COAST)

Change of ownership after the war and change of name to H.F. Alexander had no slowing influence. On her new coastwise run she amused herself by regularly racing the railroad trains between San Francisco and Seattle.

Sold to the British in 1941, she made a solo trip from the Atlantic to Alexandria, carrying the British tanks which were to stop Rommel's advance at El Alamein. Later she was turned back to the United States and operated by the army as the Gen. George S. Simonds.

On March 5, 1946, she was redelivered to the War Shipping Administration at the James River lay-up base. And there she remained until December 30, 1947, when she was sold to Boston Metals Corp. of Baltimore for scrapping.

. . .and memory finds its way into a book or record, outlasting even the loyal mind that remembered.

Very soon now a hoard of memories and some yellowed newspaper clippings in a series of scrapbooks will be all that's left of the Inter-Island fleet. One by one these colorful steamers have gone, through sale, through retirement, until now the Humuula alone remains in operation.

Barring mishap, she has a lot of good working years ahead before she goes to the scrapyard - or maybe ends her career as one of her predecessors did. Remember the Mauna Kea?

They took her out one day in October, 1936, opened her sea cocks and side ports and sent her to the bottom. The tug Eleu drew the job of towing the old ship, and the Mauna Kea's sisters in port gave her one last, long whistle salute as she went.

It didn't take her long to go under. For the Mauna Kea, built in San Francisco in 1908, was old and tired. She had sunk once before, of her own accord, at the dock. And for a long while she had been out of service.

It would take more time and more words than this article permits to sketch the biographies of all the great liners that have steamed in proud procession past Diamond Head since those days when the century was new. But it could be done.

Because there has always been someone who remembered, these fine old liners of the early 20th century remain alive today. Some of them are steaming under other names and other flags down other seas.

Even those which have sunk or burned, gone aground or been broken up for scrap have not really gone from the Pacific. They've merely dropped anchor for a spell in that port beyond the last horizon.

SHIPS NEVER DIE (IN OUR MEMORIES AT LEAST)

The material for this story was drawn from a story titled "Where Away" which appeared in the Union Oil Company of California's magazine "On Tour" published back in 1947. An article by Elaine Fogg in the Honolulu Advertiser on January 30, 1949 carried much of the material in the earlier story. Both have preserved much historical nautical information for posterity. Many of our own members will recall ships and events covered in the story - in fact many of the Society's members were 'part of the action' mentioned in the foregoing article. We hope you like it. Thanks to those who have gone before and who took the trouble to record this wonderful account of Pacific shipping in the early days of the Nineteenth Century.

W.A.B. □



Smug Harbor

THE REO LOOKS AT DISTRESS COMMUNICATIONS



(Continued from Page 19)

delay to the vessel was avoided.

With vessel size and complexity and consequent investment constantly increasing and Coast Guard and other regulatory authorities more and more concerned that required electronic navigational and communication equipment be fully functional at all times, it is not hard to realize the costly delays that could take place due to the absence of competent on-board technical repair capability. As an example, present Coast Guard regulations require that all tankers transiting Prince William Sound have two operational VHF's, two operational radars, one with collision avoidance. The fact that some few individuals presently sailing as R/O's do not possess the necessary technical competency does not invalidate this idea. Licensing authorities can set up practical as well as written trouble-shooting tests to ensure personnel competency.

It is not the purpose of this article to get into the related but very sensitive areas of union jurisdiction or minimum manning standards. It is merely to advocate the retention of Morse communication capability aboard at least until an alternate mode has been fully proven. In the meantime, there are plenty of people with adequate dual skills available. It would seem to the author that it makes good economic sense for the companies, and good public service sense for the regulatory authorities to go this route rather than the premature elimination of a proven method of distress communication.

Editorial Comment



It appears that Member William H.(Bill) Linday's approach to the problem is prudent. Regretfully, I have not kept up with the 'State of the Art' in late years but I feel the lessons we have learned over the years, starting with the Titanic should not be completely discarded for satellites capabilities which might be destroyed by enemy action leaving us without backup and unable to cope in time of need... W.A.B.



THE W2ZI HISTORICAL WIRELESS MUSEUM, a private institution and entirely a one man project, is the result of over 30-odd years of collecting and research in the pioneer field of wireless and radio.

The Museum includes over 400 items on display of apparatus and instruments from the 1899 period, when Marconi first came to America, to the end of the Amateur Spark Era which ceased in 1925. There are a few early broadcast sets, but the collection consists mainly of amateur wireless gear from about 1909, naval and marine receivers removed from many ships and vessels, and equipment used by the old time shore stations and the pioneer operating companies back to 1905.

A side collection of some 98 Morse and wireless keys and some 100 significant type vacuum tubes from 1907 to about 1925 are shown. The W2ZI collection also includes a large historical library on the art of wireless and radio, and files of magazines back to 1908 along with many papers and photographs of the early stations, pioneers of wireless and their biographies.

We heartily thank all those amateur radio operators, commercial wireless men and friends who have so willingly contributed to the success of this project.

The Museum is open to the public by appointment only. If you plan to visit the Museum, write or telephone a few days in advance so arrangements may be made. Upon arrival in the Trenton area, telephone 882-6645 for further directions if necessary.

ED G. RASER, W2ZI

19 BLACKWOOD DRIVE, TRENTON, NEW JERSEY 08628

Witness to History

(Continued from Page 40)

By ROBERT LUNDQUIST

WQK, WQK . . . This is Radio Central, Rocky Point, Long Island . . . All stations are requested to standby to receive a message from the President of the United States . . .

As the noisy chatter began from the alternator's keying circuits, I felt the radio frequency in the antenna pulse rhythmically, then it came, right at 3 P.M., the message from the President:

From the White House, Washington, D.C., the United States of America (stop) To be able to transmit a message by radio in the expectation that it may reach every radio station in the world, is so marvelous a scientific and technical achievement as to justify special recognition (stop) It affords peculiar gratification that such a message, from the Chief Executive of the United States of America, may be received in every land and from every sky, by peoples with whom our nation is at peace and amity (stop) That this happy situation may ever continue, and that the peace which blesses our own land may presently become the fortune of all lands and peoples, is the earnest hope of the American nation (stop) (Signed) Warren G. Harding November 5, 1921

Then there was such noise! Automobile horns sounded, aerial bombs exploded. There was pandemonium down on the ground. My

service had begun. Thanks to Mr. Alexanderson's alternators, Mr. Marconi's theories, Mr. Morse's code and Dr. Beverage's antennas, the era of long-wave communications, 45 words-a-minute coded messages to anywhere in the world, had started, and I was part of it.

That was 56 years ago, that day in 1921, and I thought we had come so far. But the years that followed. . . I never would have dreamed. . .

The years have been kind to me. A few rust spots, but my vivid orange and white stripes have not faded too badly. My crossarm is gone, along with the antenna it carried. They took that off in 1960, but it had been many years earlier that I stopped feeling the pulse of radio frequency in my antenna.

I've been wire brushed and painted regularly, and when you consider the number of times I've been hit by lightning . . . and the storms. That hurricane in 1938 was the worst.

The landscape has changed dramatically. There're many more lights at night now. Many of the old dirt roads have been paved for a long while and there are cars on them all the time. Houses and shopping malls have replaced the fields that farmers once plowed. The biggest change, though, has been in the technology of communications, the reason I was born.

It was in the 1930's that short-

A Witness to History

Robert Lundquist's biography of "the Rocky Point Tower."

wave radio became more popular than the long-waves of the antenna I carried. I heard the whine of the Alexanderson alternator less and less and rarely felt the tingle of the radio frequency energy in the antenna below my crossarm.

Those strange-looking, diamond-shaped antennas, which popped from the ground as far as the eye could see, were being used more often. Short-wave, they called it. They even built a new transmitting building for the short-wave antennas. It didn't have an alternator. They were using vacuum tubes.

Eventually they removed the many wires coming to my crown from the loading coil shack. Then they removed half of my sisters. Finally I was the only one left. They removed my crossarm and put a few microwave dishes on my sides. Later they put a blinking red light on my head.

I felt as foolish as it sounds, dish type antennas on two of my sides, a blinking red light on top, a long way from my position as number one antenna tower for the most powerful radio station in the world.

But, having been part of the beginning, I guess I can appreciate the changes. In my day communication was done with code, then they used frequency shift keying and multiplex. The mode then changed to cable, instead of radio. Now they are using something called data, and, if I understand correctly, a new sort of radio technique with things they call satellites that fly around the earth so fast that they stay in one place. All

this in 56 years! Imagine the next 50 or so years and the changes that will be wrought.

I know my time has come now. I saw my comrades taken down and I have had this premonition for awhile. I see the embarrassing glances from people down there who have known me for a long time. There's no colorful bunting today, but there are a lot of people. Men with cameras dart back and forth, police and fire equipment circle my legs and now a truck is parking under me.

The two men who got out of the truck are cutting my legs. Now they're fastening something to them. The crowd moves away. "Four minutes after the fuse is lit she'll come down; everyone stand clear," one of the men shouts.

Well, I've stood longer and seen more than most of you. I have been part of man's quest to better himself and the conditions of all mankind through communications. I may step out of the picture reluctantly, but I'll still be around. The next TV set you buy, the next equipment rack the engineers purchase, and even the next satellite that is launched, will have a bit of Radio Central in them.

At 2:35 P.M. on Tuesday, December 13, 1977, 22 pounds of glycerin dynamite buckled the tower's two north legs. After a slight hesitation, the tower gracefully and gently toppled. The 130 ton, 410 foot tower came to rest on the ground it had so long and faithfully watched over. We bid her thanks and 73's.

THE SPARKS JOURNAL

Silent Witness to Telecommunications History

By Robert Lundquist

I've been standing here for a long time now, about 56 years. Tall and erect, towering 410 feet into the air, I've been in a good position to witness history. Once there were 12 of us, but that was a long time ago.

I was freshly painted then — bold orange and white stripes from top to bottom. I remember the day it all began, November 5, 1921. It was a cool morning and I was filled with anticipation.

Riggers, engineers and technicians scurried around my base and those of my sisters. They checked and tested us until I thought they would never stop. The main building below was decorated with red, white and blue bunting. It was obviously a special occasion. Every once in a while as the people ran back and forth, one of them would pause, look all the way up to my top, smile, and then rush off again.

The view, back then in 1921, was beautiful, a panorama of silvery blue water and verdant land. To the east I could see the fish tail of Long Island surrounding Peconic Bay. To the west was Lake Ronkonkoma, the Hempstead Plains and, beyond, the skeletal beginnings of New York City. I could see the placid waters of Long Island Sound and the shoreline of Connecticut to the north. To the south were the breakers of the Atlantic, lapping at desol-

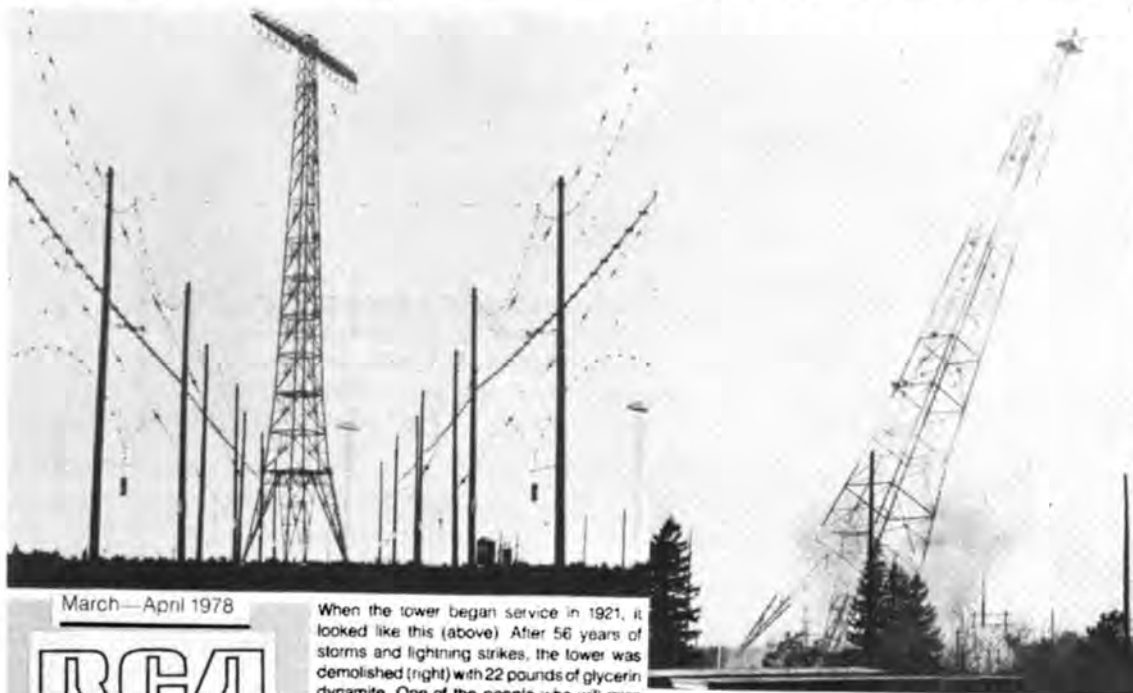
ate miles of stark white sand and dull green marsh grass.

The evening view then was spectacular, the lights of the town of Riverhead and the steady, reassuring flash of the Montauk Lighthouse in the east, the dim lights of Bridgeport and the Port Jefferson Ferry twinkling in the north. In the west was the glimmer of a few small towns, the vague outline of what we then called the Great White Way and the torch of Miss Liberty.

As the morning passed, a single hawk circled in from the northwest, flapped its wings to halt its flight, and landed on one of my crossmembers. As I watched the hawk I noticed a puff of smoke from a train which had left Rocky Point Station. That was quite a sight. There were at least 250 people, twice the population of Rocky Point, slapping each other on their backs, shaking hands, and looking up at me.

I guess it was a while before three in the afternoon that I became conscious of the whine of the Alexander Alternator, down below me in the decorated building. Technicians had made last minute checks of the entire system and I felt the tingle of radio frequency energy in the antenna suspended from my cross-arm. The message that followed was, I suppose, my birth announcement to the world:

"CQ, CQ, CQ DE WQK,



March—April 1978

RCA Relay

When the tower began service in 1921, it looked like this (above). After 56 years of storms and lightning strikes, the tower was demolished (right) with 22 pounds of glycerin dynamite. One of the people who will miss the tower the most is John Schaub (below) a Rigger at Rocky Point. He climbed the tower for more than twenty years. He claims the climb could be done in six to eight minutes in a hurry, but more usually took half an hour. "It was very enjoyable, except in extreme weather conditions. You could see both the north and south shores of Long Island, just by turning your head. I had a tear in my eye when it went down. I'll really miss it."



SPARKS JOURNAL

★ ★ ★ ★ ★ SOCIETY OF WIRELESS PIONEERS, INC. ★ ★ ★ ★ ★



(Continued on Page 39)

HISTORICAL PAPER

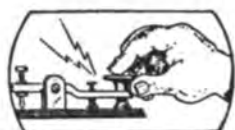


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TO:

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~ Dedicated to the History of Seagoing Wireless Operators ~

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V = Veteran, M = Member, Sparks = Worked at Sea]

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